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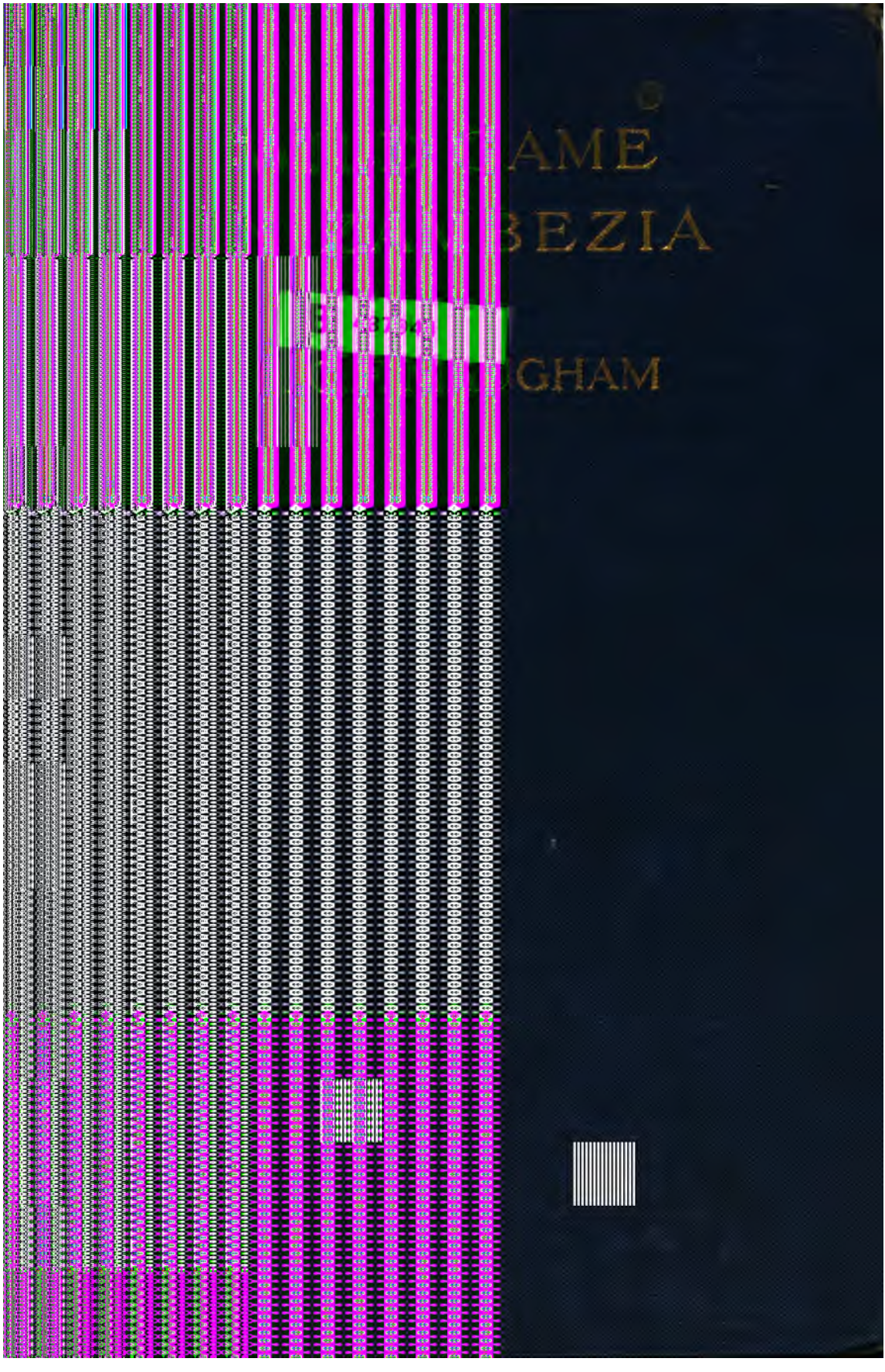
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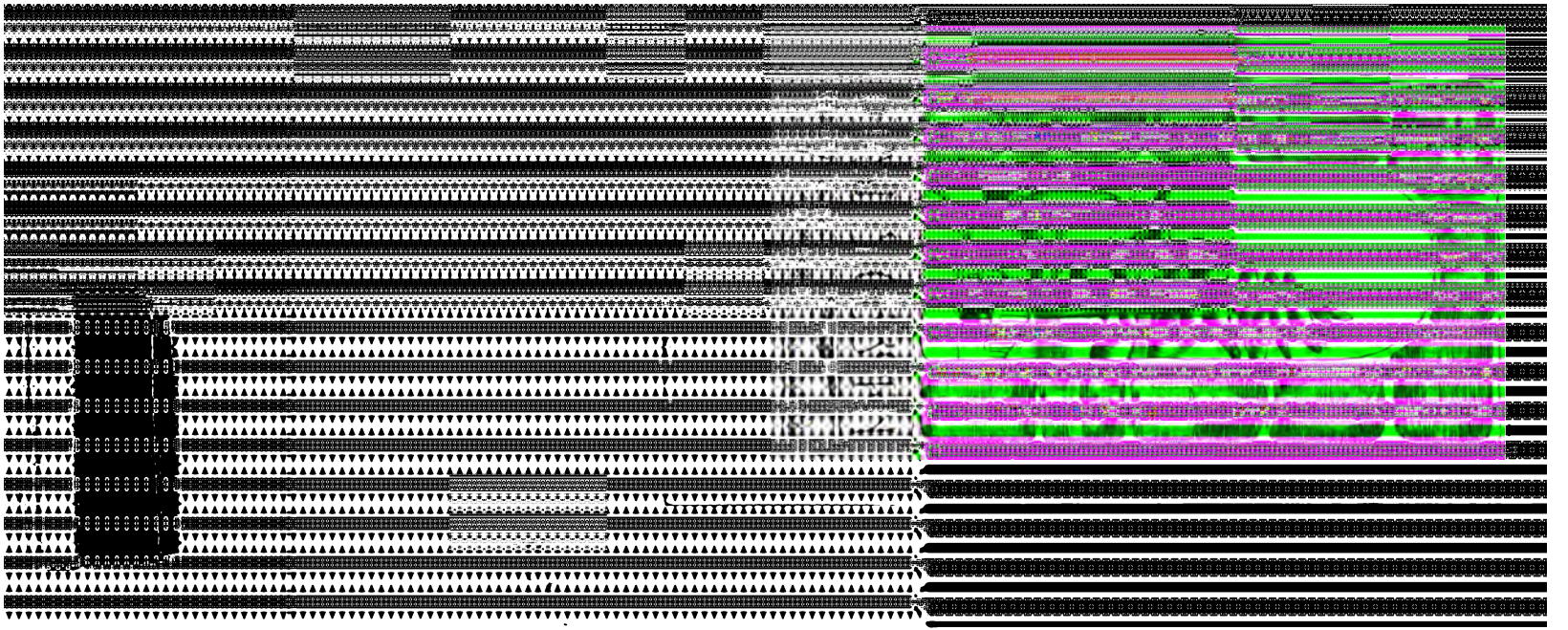


To Chase S. Osborn
April, 1920 E. L. C.
See notes on back flyleaf

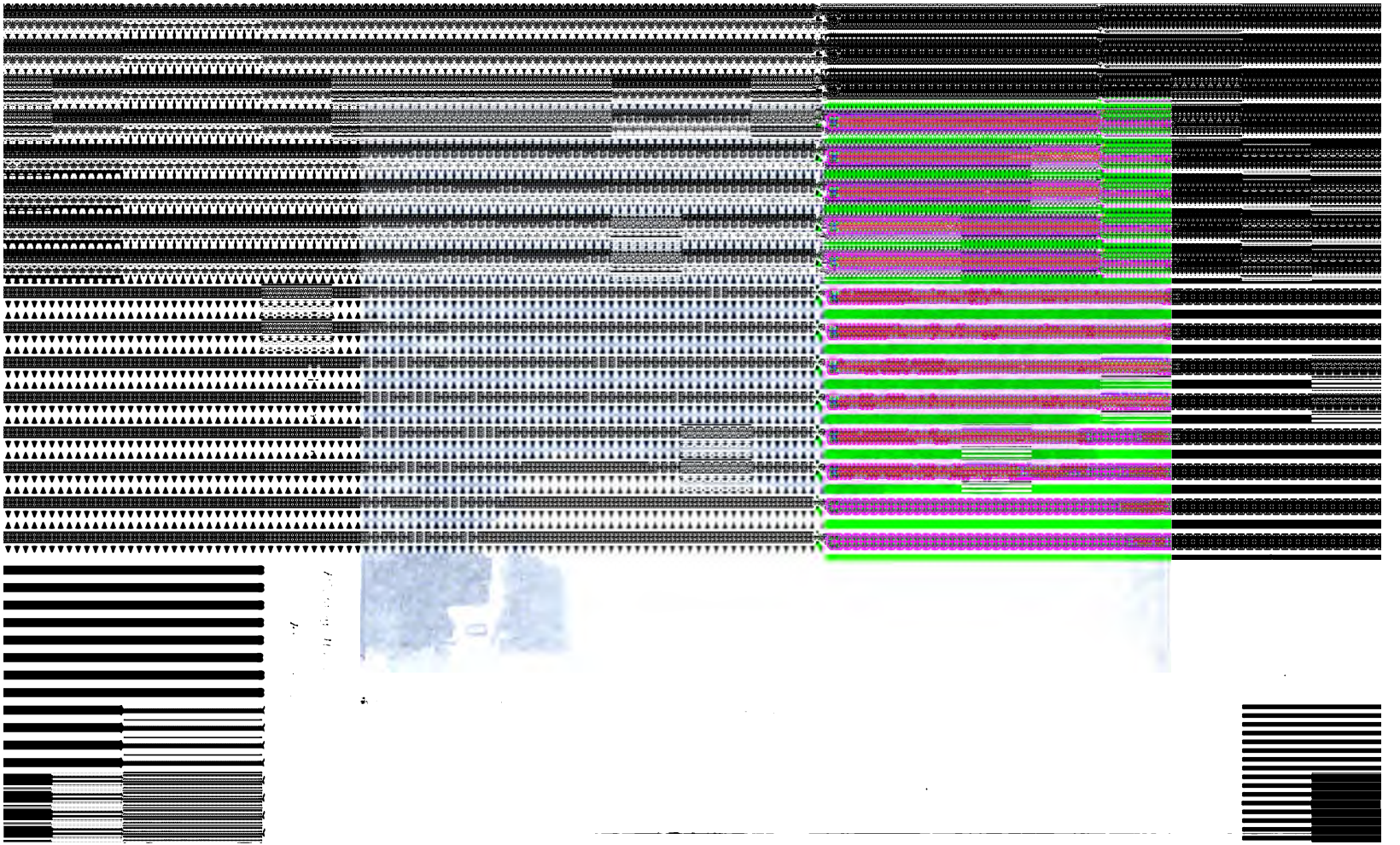
E. L. Cooley
Aug. 1919

Chas. S. Osborn.
Sault Ste. Marie
Michigan

# WILD GAME IN ZAMBEZIA

*Photo by Wexelsen.*

*Frontispiece.*



# WILD GAME IN ZAMBEZIA

By R. C. F. MAUGHAM
F.R.G.S., F.Z.S., F.R.C.I., ETC.
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"A HANDBOOK OF CHI-MAKUA" ETC.

WITH MAP AND ILLUSTRATIONS

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# PREFACE

SINCE I set out to give some account of the wild game of Zambezia I have unswervingly kept in view the, I hope, praiseworthy object of dispensing with the use of the cumbrous scientific names which in every book upon game beasts wherewith I am acquainted—my own included—bestrew the lines of almost every page. In books dealing with the purely scientific aspect of the question these repetitions *ad nauseam* of each creature's classification name may serve some useful purpose, but in one written by a hunter for hunters they seem to me to be out of place. Can you imagine two friends meeting in the club and exchanging some such dialogue as the following?

"Hallo, old chap, back again? Had good sport?"

"Yes, not at all bad; been out to British East Africa, you know."

"Oh yes, what did you get?"

"I got *Strepsiceros capensis*, *Hippotragus niger*, and some really fine *Phacochœrus æthiopicus*."

"Did you really? Did you see any decent *Potamochœrus chœropotamus*?"

"No, but I got a ripping *Connochætes albojubatus*."

And so on.

Therefore, as books destined for the hands of the general reader should, in my opinion, exclude matter and terms only intelligible to persons possessed of special knowledge, I have carefully omitted scientific names and references from my pages, with the exception of my chapter dealing with tsetse flies, where a rigid adherence to this rule might have imperilled the clearness of my text. It will even be observed that the animals are not grouped in their respective families, but follow each other very much in the same order as in the mind of the unscientific reader.

My object in drawing attention to Zambezia as a hunting centre is twofold. First of all, I desire to place before my shooting contemporaries opportunities of spending a delightful and highly profitable holiday in a portion of the African continent but little mentioned in connection with the pursuit of game, and thus enable them to garner in their memories pleasing recollections of a district whose name is all too seldom upon the tongues of men; and secondly, I write largely out of a feeling of gratitude for the much kindness and hospitality I have received at the hands of its courteous colonists of all nationalities.

It will perhaps be noticed that I have done my best to make this a work descriptive of the animals, and not of their slaughter. A few

instances will be found of the shooting of certain of the larger types, but I have endeavoured to subordinate actual hunting, which every sportsman must conduct for himself according to his own ideas, to a simple description of the various members of the game families, their habits and surroundings, drawn from my field notebooks and my recollections of them, the greater part of my manuscript having been written very near to the scenes which it imperfectly describes. I trust, therefore, it will be found sufficiently up to date to be of some slight value, not only to my many hunting friends in various parts of the world, but to those numerous representatives of a virile younger generation of sportsmen already knocking imperiously at the door.

In the preparation of this volume I have derived much assistance and refreshment of memory from my friend Major Stevenson-Hamilton's excellent work, *Animal Life in Africa*, whilst to the most accomplished photographer and sportsman of my acquaintance, Mr. G. Garden of Mlanje, Nyasaland, my grateful thanks are due for his excellent photographs, as for his kind permission to publish them. Lastly, I wish to express my indebtedness for my picture, "A Fine Bag of Lions," to Mr. R. Wuilleumier, sometime British Consular Agent at Quelimane.

S-H p 361

R. C. F. MAUGHAM.

British Consulate General,
Liberia, 1913.

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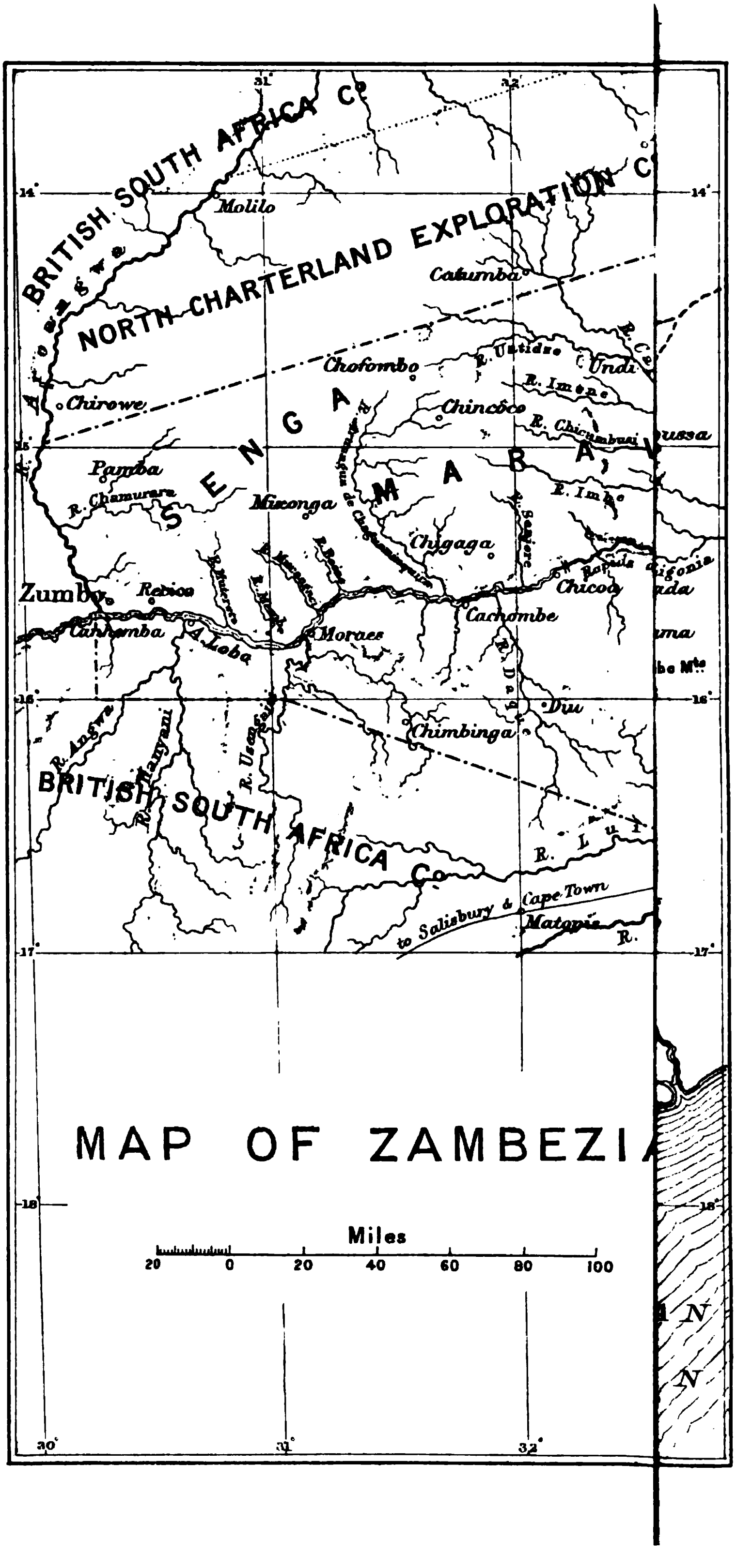
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MAP OF ZAMBEZIA
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# WILD GAME IN ZAMBEZIA

## CHAPTER I

### INTRODUCTORY

It may be taken as a melancholy but undoubted fact that, with the exception of a few remote and restricted areas, there are no portions of the southern half of the African continent containing anything like those vast quantities of game which more than fifty years ago moved one of the greatest of African hunters to write that "the multitude of living creatures, at certain seasons and localities, surpassed the bounds of imagination." The Cape Province, Natal, the Orange Free State, Bechuanaland, and many other immense expanses of country are almost denuded of wild game, whilst over wide portions of Rhodesia, we are told, its destruction has been permitted to an extent which seems to border dangerously on recklessness.

Even in the formerly populous game districts of Mashonaland and Matabeleland the herds are retiring and growing scarcer year by year—seeking sanctuary, as it were, in remoter fastnesses, from the daily encroaching advance of civilisation, of high-velocity rifles, and copper-capped bullets. Assuredly if there was ever a

time whereat the preservation of the beautiful varieties now growing rarer and rarer in the more accessible portions of the great continent was indicated, it is the present; and although I am happy to be able in some measure to congratulate both British and Portuguese foresight in having established game reserves in Nyasaland, the Transvaal, the Province of Mozambique and elsewhere, it seems doubtful whether we have done all that we might to secure the safety and preservation of the great game families as a whole.

That is the entire question. Their preservation, and how best to compass it. During the last ten or fifteen years much has been accomplished in this direction, but more remains to be done both at the present time and in the future. Of course, as will be easily understood by the large majority of those for whom these pages are written, the hunting of big game is an extremely absorbing pursuit, and one which, in the absence of due regulation, would no doubt be abused by many. Nature herself was the first to impose restraint, and a formidable one it is. Thus in Zambezia for fully six months of every year, namely, from January to July, hunting is attended by the almost insurmountable difficulties presented by the immense height of the unburned grasses, and the impassable luxuriance of the summer vegetation. It is not, therefore, until the earth has cleansed itself by fire of the huge burden left by the hot rainy season that the hunter can commence

operations; added to this, from October to May the climatic conditions are well-nigh insupportable, and it thus follows that the breeding season of many of the varieties found falls within the period last mentioned. But, as I have so repeatedly stated and written, what is required is a more extended system of inviolable game reserves, a more coherent method of enforcing regulations enacted, and more efficient machinery for bringing offenders against existing game laws before the authorities empowered to punish misdeeds. In Nyasaland, I believe, the regulations in force are given effect to by a sufficient *personnel* both European and native, so that transgression is almost certain now to result in the infliction of the penalty prescribed; but if one might be permitted to criticise the measures adopted within the Portuguese Sphere of Influence, one would be forced to say that, although the law in itself is well imagined—well drawn up, its enforcement at the hands of wardens, rangers, verderers, or whatever we may please to call them, is not sufficiently stringent. My view of the case is that from the date of the creation of a reserve for the preservation of game, no person whomsoever should under any pretext be permitted to discharge a firearm within its limits except for the purpose of exterminating therein such predatory forms as may constitute a danger to the game beasts it contains. I think if the importance of this rule were more widely understood and appreciated, many persons who now permit themselves to

accept (and sometimes to solicit) privileges in the nature of complimentary permits to shoot in game reserves would not only abstain from the discredit of asking for such a concession, but would set their faces rigorously against it if offered, as well as sedulously discourage its acceptance by their friends or colleagues or subordinates. In this way much might be done to create a feeling of recognition of the inviolability of the reserves, as also of the desirability of sparing no effort to secure in other parts of the various colonies a timely extension of the safeguards now provided by them.

The man who furnishes himself with a number of irresistible high-velocity rifles, and fares forth into the haunts of Africa's splendid fauna intent only on numerical destruction, and with never a thought for the perpetuation of the varieties of which he is in pursuit, should either be placed under restraint altogether, or so bound down that, by the slaughter of one beast over and above a reasonable and restricted limit, he should be faced by penalties calculated in their severity to act as a complete deterrent in the cases of others contemplating a like offence.

Whilst we are on this subject it is interesting and instructive to find that within the last year or two a new school of sport has arisen, and has shown signs of attaining to popular dimensions: a sport which will doubtless not only add vastly to our knowledge of African mammals as a whole, but whose enjoyment in no way threatens to strike at the existence of

the interesting families with which it connects itself. I refer to the Camera Sportsman—to that small but growing section of nature lovers which has arisen to demonstrate a new sport, and one which does not always entail the use of the rifle. One of its most recent apostles, Mr. Radclyffe Dugmore has published a splendid work upon the subject, magnificently illustrated by a collection of telephotographs and flashlight pictures of startling fidelity to nature. They form a convincing testimony to the sport and excitement obtainable with little loss of animal life, and although it would be fatuous to imagine that for many years to come the example of this artist-sportsman will be very widely followed, still it is a development which promises much, as well from the point of view of game preservation as from that of adding greatly, as I have said, to our knowledge of wild beasts as they exist from day to day.

In the preface to his book Mr. Dugmore says that "the life of any animal, be it bird or beast, is far more interesting than its dead body," and he adds that he knows many men who a few years ago devoted their holidays to shooting, but who now find greater pleasure and interest in hunting with a camera, whilst the excitement and difficulty are far greater. With these views I entirely concur, although I am not sanguine enough to suppose that the sport of great game hunting simply for photography is one which is likely to attract many beyond those who, like myself, have already had a fairly liberal share

of the more tangible sport which one seeks with a cordite rifle.

But to return for a moment to the question of reserves. What is required now is a rigorous safeguarding of existing beasts by an extended system of game reserves, so selected as, in the first place, to prove suitable centres for the conservation and propagation of many widely differing groups, and, in the second, sufficiently far removed from occupied centres as to eliminate the probability of their encroaching upon agricultural or other pursuits. It seems to me that for centuries to come the portions of the African continent which present the most suitable appearance for being thus utilised are those which can best be spared for the purpose. The slow tide of European immigration now setting sluggishly towards these vast waste places of the earth is not likely, for many generations to come, to have much effect upon the game-carrying capacity of the districts as a whole; and although conditions occasionally change rapidly in such centres as British East Africa, for example, and in others to which public attention is directed for some specific reason, or for the exploitation of some form of industry capable of great extension, still it must not be forgotten that British East Africa fortunately stands in a very unique position, not only in regard to her enormous extent, but to the immense areas of healthy uplands with which she is endowed. Did we seek for a further reason for our congratulations, it would doubtless be found to

consist in the fact that this rising colony has already very fully grasped and realised the important duties she owes to her magnificent and diversified game families.

In the States of the South African Union, or such of them as have devoted attention to game preservation, most important results have already been obtained. Had our efforts in this direction only been made twenty years earlier, we should have been able to save from extinction at least one interesting form which, years ago, occurred in great numbers. I refer to that singular dun-coloured horse, the quagga. This has gone from among us, completely exterminated, it is said, by the rifles of the South African farmers.[1] Only just in time came the existing game restrictions to perpetuate that fascinating form, the black wildebeeste, comparatively few of which remain. A few elephants and buffaloes survive in a state of strict preservation in the Knysna Forest and in the Addo Bush near Port Elizabeth; but it is, I consider, most unfortunate that more was not done years ago in the Cape Colony and elsewhere to establish refugees for the protection of such families as the brilliant-coloured bontebok and others which have dwindled to a point dangerously near to complete disappearance.

At the present time, in various parts of British East Africa, one of the most astonishing sights the world can offer to modern travellers

[1] The same may be said of that near relation of the roan antelope, formerly called the blaaubok, but now entirely extinct.

is that of thousands of animals, usually seen only in a well-organised zoological collection, walking tranquilly about in the bright upland sunshine. At those points whereat they are most commonly seen the grass is so short, through continuous grazing, as in no way to interfere with the spectacle of multitudes of zebras, of gazelles, and of countless other game beasts which pay scarcely any attention to the railway train as it shrieks through their midst. It is, I understand, no infrequent occurrence to see rhinoceros from the windows of one's compartment, whilst lions also are by no means uncommon. Journeying recently down the East African coast from Mombasa with a friend who had just come from Lake Victoria Nyanza, he assured me that he had seen giraffes from the railway line, and that two of these animals, at a distance of less than 200 yards from the track, showed no disposition to disturb their repast on the passage of the train at that comparatively short distance. I remember also hearing a story, vouched for by credible witnesses, —that on one occasion, shortly after the opening of the railway, a train suddenly turning a corner came upon a couple of rhinoceros which had chosen the permanent way for a temporary resting-place. One of these, probably the female, took to flight, but the larger of the two, after one moment of resentful stupefaction, and with the blind, headlong rage so characteristic of this singular beast, gallantly charged the engine of the oncoming train. I was told that quite a perceptible shock was experienced throughout

its entire length. Fortunately the rhinoceros, which was killed on the spot, was flung off the track by the violence of the impact, otherwise the derailment of at least the engine might easily have occurred.

I hope, however, my readers will not leap to the conclusion that incidents like the latter are of frequent occurrence. It is true, I believe, that heart-rending complaints are made from time to time by distracted officials of the damage wrought by monkeys disporting themselves on the telegraph wires, and by giraffes which saunter leisurely but irresistibly across the permanent way, completely forgetting that telegraph pole construction does not yet make allowance for the length of their necks. These catastrophes happen, it is true, but I ask any lover of the beautiful wild things of the forest and plain, which have lent such world-wide attraction to the plains of East Africa, if such small inconveniences as these are, in the circumstances, worthy of consideration as such ?

Turning to the great game families existing at present in the region of Zambezia, the most numerous are probably the zebras ; then come certain antelopes, such as the eland, sable, roan, gnu (both the brindled and Nyasaland varieties), kudu, hartebeeste, waterbuck, and others. Elephants are found in the forested uplands during the winter, and buffaloes are still obtainable in the wide plains bordering some of the remoter streams. There are, however, no giraffes or gazelles, such as Grant's or Thompson's, or the

oryx found still in the Cape Colony. The huge hippopotamus frequents almost all the waterways—even the Zambezi itself, a little way out of the path of the steamers, still contains considerable numbers of these strange amphibians—and they are a source of great damage to the native gardens, as well as to sugar cane wherever they find their taste for these products can be indulged in safety. The rhinoceros is by no means uncommon in certain parts of the country, and maintains to the full the reputation for uncertainty of temper which has so justly been bestowed upon this formidable animal at almost all other points at which it occurs. Then the smaller antelopes are well represented by the inyala, impala, bushbuck, reedbuck, steenbuck, duiker, oribi, and klipspringer, as also by that graceful little type, Livingstone's suni. Pigs take the form of the unlovely warthog, and the smaller, toothsome bush-pig, whilst about six monkeys are headed by the yellow baboon and the formidable chacma.

We now come to the carnivora. Throughout the Mozambique Province, and especially in Zambezia, lions occur in considerable numbers, and are a source of great terror to the natives and others, and loss of life to them and to the game. Leopards are almost equally numerous and well distributed, especially in hilly country, the animal found here being, I believe, in all respects the same as that common to most other parts of Africa. Servals also occur in all the low-lying country, and doubtless take heavy

toll of the smaller antelopes. They are interesting, handsome animals with beautifully spotted skins and light-coloured bodies. Then come the chita, the caracal, the tiger cat, and one or two wild cats. Very freely distributed are the genets, civets, and two kinds of mungoose; whilst the spotted hyena is common everywhere. His voice is heard every night in the interior, consorting with the side-striped jackal and other prowlers. But probably, for his numbers, the greatest scourge of all is the hunting dog, which, throughout these districts, wanders about in packs of from ten to sixteen or more. I know of no more potent agency to clear a region of its game than this bold, not unhandsome, much-dreaded animal. Very far from shy, even when approached by human beings, I have, however, never heard of a case of their having molested natives or others. Last year, having to pass through a very well-known game district, I was much surprised to see in it neither game nor recent spoor. On the second day's journey, however, having to cross the sandy bed of a dry stream, I saw what I believed to be the tracks of the hunting dogs, and not much later in the day they streamed across my path in full view like a miniature pack of hounds. I was unable to see what they were in pursuit of, but, such is their speed and tirelessness, I felt sure it would have but small chance of escape.

Without dealing with the smaller forms—the rabbits, porcupines, and others—to which reference will be made in a later chapter, the foregoing

represent the principal beasts found in Zambezia, and are those with which the hunter may, with a very small modicum of luck, be tolerably certain of being able to try conclusions.

South of the Zambezi, as well as within the district of Quelimane, there are wide expanses where at certain times of year one is rarely out of sight of the herds. I suppose the greatest numbers are still to be found upon the great flats bordering the Urema River in Cheringoma; but, in addition to these, the remote inaccessible plains lying to the east of the Cheringoma range may be regarded in their season as being the haunts of very large quantities of animals.

One of the most interesting and difficult questions regarding the habits of the game beasts of Zambezia connects itself with the seasons of, and the reasons for, their periodical migrations. Putting aside for a moment the elephants, the motives for some of whose movements are not unintelligible, the remainder of the animals under consideration have the oddest and most inexplicable habit of disappearing for months at a time, leaving their usual haunts well-nigh deserted, and then reappearing apparently without rhyme or reason. Thus, in the rainy season, a time of year at which fortunately hunting is now no longer permitted, I have seen on the Cheringoma flats, between that mountain and the grand range of Gorongoza, animals so plentiful that for several days together they were never out of sight. From the doorway of my tent on the Gungwe and Zangwe marshes I have watched

the game for hours as the animals wandered about on their feeding grounds, or crossed from the distant forest belt in long lines to drink in the crocodile-haunted waters of the Urema. Sometimes the waterbuck and wildebeeste would pass the tent, apparently without noticing it; at others they would stand for some minutes regarding it with pricked ears and distended nostrils, then, curiosity overcoming discretion, they would slowly approach until at a hundred yards or so a vagrant current of air would give them our scent, and they would wheel madly round and gallop away for a quarter of a mile, where they would halt again and gaze as though their lives depended upon it. Zebra especially possess a curiosity which is positively feminine, and will often stand motionlessly regarding one on the line of march without displaying the smallest disposition to stampede. But to return to the question of migration. The foregoing sentences describe the plentifulness of the game during the rainy or summer season; in winter, on the other hand, that is to say between June and October, you will look in vain for these large numbers, and have, in some cases, to work extremely hard for certain varieties which at first seem entirely to have disappeared. Take, for example, that splendid tragelaph, the eland. In northern Cheringoma there is a fine game country of very wide extent called Inyaminga. Here, in the winter season, eland and sable antelopes are very numerous, and run in large herds. Discussing this fact recently with the

Portuguese district commandant of Cheringoma, Señhor Alfredo Liebermeister, a very capable and courteous official, and an old and valued friend of mine, he told me to my surprise that in the summer or rainy season Inyaminga was wholly deserted by the two varieties mentioned; but that buffaloes, which in the dry period were not numerous, returned thither in the hot weather in considerable herds. Buffaloes, of course, are well known for their curious migrations—for the singular manner in which they appear and disappear over intervals of several months at a time. On the Inyaminga flats some years ago there was one herd of about forty buffaloes, whose leader was easily recognisable from the circumstance that he possessed only one remarkably large horn, the other having been broken off just at the point of the turn. This herd was known to the natives as (I am not sure if my termination of the word is quite correct, if not it was something very similar), Nyangalira's family, or Nyangalira's children. They all knew Nyangalira, the old bull leader, quite well, and on certain occasions when I have been in the neighbourhood asking after buffaloes, they would tell me quite gravely that Nyangalira's family were either in such and such a place, or had gone away, and would not be back again until the rains came. None knew why or where he went, but I have heard Lenço, my old elephant hunter, say that Nyangalira was possessed of such powerful medicine that he was as fearless of lions as of the younger bulls, and that he

(Lenço) very greatly doubted if it would be possible to shoot him,—at any rate, he was not at all keen that I should undertake so hazardous a venture, remarking with great truth that no one could tell what would happen if I did. Of course, although nothing would have induced me to harm the poor old beast, there were, nevertheless, several good heads in the herd with which he was permitted to associate, and I have sometimes thought that the singular attributes with which native superstition invested him may have arisen from the unusual circumstance of an injured bull being permitted by the younger males to continue to consort with the herd. As a rule, waning powers are quickly detected in the course of the encounters which constantly take place between the males, and no time is then lost in unceremoniously turning away the worn-out bulls, who either become solitary animals, or, with several others in similar evil case, meekly bear the bovine burden of increasing years until they fall victims in the end to man or the lions.

I suppose really that the true reason for game migrations connects itself chiefly with food considerations; that they share in minor degree with the elephant the surprising knowledge of the exact time of year when the fruit or leaves or bark of some favourite tree, or some greatly relished grass or other plant, is at its perfection of ripeness and readiness to eat, and that when this knowledge comes to them they set out, covering, it may be, great distances to reach the tempting

attraction in time. However this may be, I do not think that the migratory habits so characteristic of the varieties I have mentioned are shared at all by the waterbuck and zebras, and not to anything like the same extent by the gnus and the hartebeestes. Still, I have observed, in the case of the gnus, a tendency to desert wide expanses of country for considerable periods of time, and to reappear long afterwards when their presence was quite unexpected. The kudu is not sufficiently numerous in any portion of the country with which we are dealing to enable an opinion to be formed as to his habits in this regard, whilst the continuous presence of the smaller antelopes in districts favourable to their well-being gives ground for the supposition that they, at any rate, are seldom seized with roving desires.

Before completing this chapter I would say a few words regarding the salutary measures which have been adopted in certain British colonies in Africa with a view to checking the wholesale heartless destruction of game beasts which has been carried on for so many years, chiefly by a certain class who make a scandalous and unnecessary living by preserving the flesh of their victims and selling it in the form of what they call "biltong." In the Transvaal and elsewhere, I am informed, this disgraceful pursuit has been properly and sternly repressed, and it is in the earnest hope that my words may extend this repression to Portuguese territory, and indeed assist in making it universal, that these lines are penned. The immature male and the female

heavy with offspring alike yield "biltong," and nothing with life in its nostrils and flesh on its bones is spared so long as it can put a few blood-stained pence into the "biltong" hunter's ever-gaping pocket. By him whole districts have been devastated, whole species almost wiped out. The man who wields a pole-axe in a common *abattoir* has as much right to call himself a sportsman as this miscreant, whose mission in life it is to destroy the most beautiful of living forms for no other object than to prolong his own contemptible, unnecessary existence. I trust the time is not far distant when the manufacture of "biltong" from the flesh of wild game killed expressly for this purpose will be made a criminal offence punishable with the heaviest penalties.

## CHAPTER II

### ZAMBEZIA: WHERE IT IS, AND WHAT IT LOOKS LIKE

I HAVE already given an imperfect description of the large and important division of the Province of Mozambique which has come to be called Zambezia in a book bearing that name, and although this chapter becomes necessary by reason of the smallness of the knowledge of the average individual regarding so out-of-the-way a portion of the earth's surface, I hope I may not be considered as having neglected this splendid region if I do not give more than a passing glance at its manifold beauties and attractions in a book which is, after all, meant to be a book on big game. I have repeatedly stated elsewhere that for anything like a full account of Zambezia, its marvellous scenery, and its wealth of every description of natural science, a book consisting of half a dozen portly volumes were surely all too insufficient and inadequate. It is one of those immense slices of Africa whose vastness is a thing which stay-at-home Europeans experience difficulty in stretching their faculties even dimly to appreciate. It contains almost every variety of climate and scenery—every beauty of African landscape.

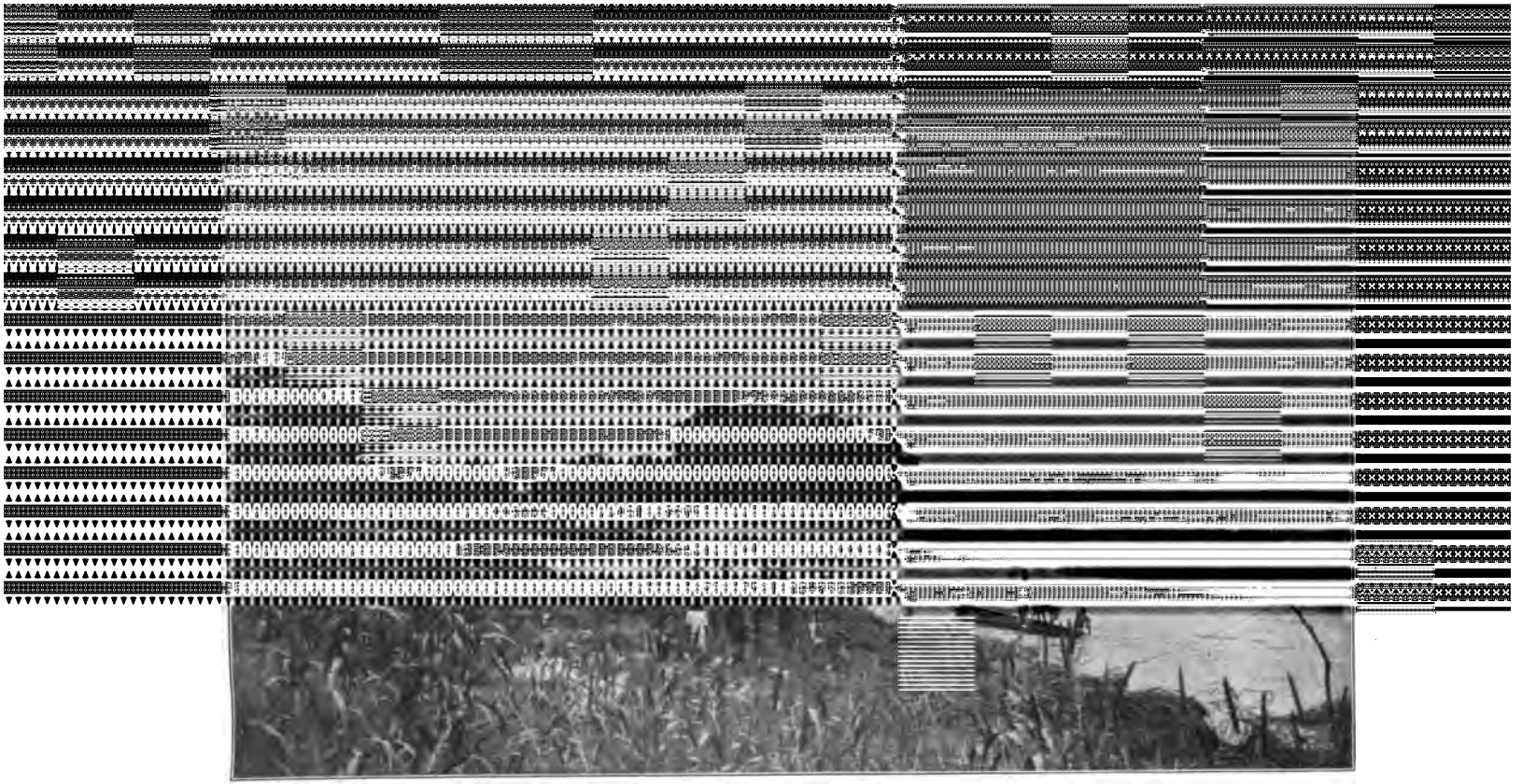
The division of which Zambezia may be re-

garded as consisting extends from the 14th parallel of south latitude, at a point about 60 miles west of Lake Nyassa, to the 19th degree or thereabouts, taking in the whole of the islands formed by the delta of the Zambezi, and a considerable portion of its southern bank. It is an immense wedge of irregular shape driven into the heart of the great continent, with a width of nearly nine longitudinal degrees, and separating our Nyasaland colony from Southern Rhodesia by a respectable area almost exactly the shape of a horse's head, and some 240 miles long by 300 wide. This wedge, however, is only a portion of Zambezia—certainly much less than half its full extent, and, whilst following the north bank of the Zambezi from the Loangwa or Aroangwa River all the way down to the coast, it yields to the chartered Mozambique Company (Companhia de Moçambique) the occupancy of the southern margin over not quite half of that extent. Before plunging into the main *motif* of this book, therefore, I desire to devote a few pages to giving my readers some idea of what the country consists of, and its appearance at different points at the time of year at which the hunter of big game commences to unpack his cherished rifles and look once more to his camp equipment.

From June to November, then, the South Central African winter is at its height, and, during that period, the climatic conditions are most favourable to hunting and travelling in the far interior. The days are warm and sunny, whilst the nights and mornings are cool in the lower

elevations and piercingly cold in the beautifully upland regions of which so much of this portion of Africa consists. If, therefore, an excursion should be contemplated with a view to indulging in a satisfying allowance of great game hunting on the Zambezi, or in its neighbourhood, and should penetrate into the vast, little-known fastnesses of the Shupanga Forest which lie on the southern margin of the great river, I would have you, in anticipation of what you will find, cast your mental gaze over some such picture as the following.

On the one hand the broad, shallow waters of the Zambezi, blue as a belt of sapphire, flowing placidly, 800 yards wide, between pale yellow banks of fine sand. Above and below, the main channel divides to encompass large, sandy islets covered with tufts of feathery spear-grass, and affording in their inlets and backwaters restful abiding-places for wild-fowl, crocodiles, and, possibly, a shy, experienced old hippopotamus. The main banks of the river—18 or 20 feet above the stream—display the curious strata of their compositions,—first sand, then a coarser sand full of quartz crystals and small shells, and, lastly, the dark grey, almost black surface-soil affording rich sustenance to the rank grasses and countless palms which here line the bank of the river. Let us climb up it and look farther afield. From the point of our ascent there stretches in towards the forest a belt of beautiful, dark green spear-grass, that attractive, spiteful growth the ends of whose



*To face p. 20.*

*Photo by Wexelsen.*

ZAMBEZIAN SCENERY.

blades are sharply pointed to prick and scratch you as a path is forced through them. This gives on to a plain of shorter, if still very rank grass, over which, as we reach it, a couple of reedbuck gallop madly to gain the protecting shelter of the neighbouring forest. Here the magnificently fronded Borassus palm, a growth very similar to the well-known fan palm of India, and the Hyphœne, but little inferior to the last named either in size or beauty, lend that tropical aspect to the surrounding scenery which invests the African landscape with such grace and charm. We follow a narrow game path, and wend our way towards the tree belt, whose dark, umbrageous outline affords a welcome contrast to the dry, grassy, sun-swept plain which stretches between it and the descent to the river. On its edge stand enormous, grey, ghostly baobabs; shady, shimmering groves of silvery-leaved bamboos, sometimes growing completely over ancient ant-hills of such immense height that they would rather appear to be artificial than natural features of the view before us. Then we find, as the forest grows thicker, large trees roped together with depending monkey-ropes and llianas; great clumps of rock-like euphorbias; dwarf iron-wood and shady acacias; velvety-foliaged albizzias and coarse-looking gomphias; huge parinaria with lofty stems as straight as a mast, and as thick as the boiler of a good-sized locomotive. All these and a hundred more. Then, as the mellow afternoon sunlight, slowly westering, strikes the

peak of some distant, lofty chain of hills, we have a new element of beauty added to the absorbing picture, the details of which we have set ourselves to examine—that one necessary feature of far-away mountains which now completes the harmonious tropical landscape. Away to the south, here and there, many miles apart, but in appearance comparatively close together, rise isolated pillars of thin, blue smoke, the smoke of the grass fires whereby the overburdened land rids itself of the redundant vegetation of the past rainy season. This smoke now overshadows the entire country, toning down the overhead blue to a shade almost resembling transparent French grey. A haze overhangs the forest and plain, only to be dissipated by the first deluges of the rains of early December, and there is in the air the sweet, dry smell of the grass that awaits but the spark of some passing native's cigarette to burst into conflagration also.

We pass onward through the forest, leaving the Zambezi behind, and every step of the journey possesses its own peculiar interest. The country hereabout is evidently the home of a fair amount of game. Each partly dried water-hole is paddled all round with the spoor of all kinds of animals, from the vast foot-print of the ponderous elephant to the tiny delicate impression of the graceful steenbuck. The prostrate trunks of recently flourishing trees, as also the nibbled extremities of the green bamboo shoots, tell of the passage of elephants, as do also the ponderous

down-torn branches of the massive trees, and the straggling, levered-up roots, whose bitten-off ends show that they too are appreciated items of the elephant's daily *menu*. Although the winter season is still at its height, and here and there sad blackened expanses show where the forest fires have licked up the exuberant summer greenery, the delicate blades of newly sprung grasses are already surrounding the charred roots, full of the promise of that abundant life which, with the first of the spring rains, will transform the whole face of the land into a vast, wild, all too short-lived garden.

We now reach one of those numerous expanses of swampy reed-surrounded fen which, in this part of Africa, are so full of interesting forms of life. The ground shakes beneath one, and here and there the black, moisture-laden soil of the path we follow forms a gay, sulphur-hued, tremulous carpet, covered as it is for several square yards by countless tiny, thirsty, pale yellow butterflies. The breeze of afternoon ruffles the surface of the water, gay with light blue lilies, surrounded by bright verdant spear-grass with great snowy heads, and wide expanses of transparent green papyrus rushes, tall marsh thistles, and the tender greenery of the finely woven bog-moss. The reeds and rushes are full of warblers and chats, and out among the great flopping leaves of the water-lilies ducks and spur-winged geese sit tranquilly. At the foot of the surrounding greenery a dozen snowy-white egrets are watching the water, with a

goliath heron and a numerous assembly of black ibises. Here a small peninsula of low, green grass juts out some yards into the water, and among the giant duckweed and floating pollen of the encompassing grasses by which the surface is covered, one may see the tracks of the swimming ducks and dabchicks, whilst long-limbed stints and spidery-toed waterfowl rush in and out of the gleaming grass stems, where the sunlight seldom penetrates—those cool, grey, insect-populated depths where every day a million lives are born and die.

The rattle of the wind-swept reed stems sounds pleasant to our ears—a foretaste of the cool afternoon breeze, which in the tropics, with praiseworthy regularity, comes up with the westering sunlight to wipe away unprofitable recollections of the hot, thirsty forenoon tramp. All through the morning hours forest and fen have lain slumbering in a gradually increasing heat. As noon approaches a deep silence seems to brood over the face of the entire country. The beasts have fed their way into their midday shelters; scarcely a bird's note breaks the intense stillness of the forest. The damp air of the marsh, heavy with the odour of water-lilies and other fen blooms, reminds one of the oppressive atmosphere of an English hot-house. These are the hours of the insects' daily revels. Butterflies of gorgeous hues; large, troublesome, buzzing flies and droning beetles, fill the air with a low, tremulous, drowsy hum; glittering dragon-flies, each wing a separate jewel of rare brilliancy, sun

themselves on the grasses and reeds, and hosts of other tropical insects resplendent and dingy, lively and torpid, feel in every fibre of their delicate bodies the vivifying exhilaration of the warm, grateful sunlight. This strange stillness continues unbroken all through the later morning hours, and it is usually not until some time after midday that the first gentle waving of the flopping spear-grass heads heralds the welcome approach of the afternoon breeze. Thenceforward the heat becomes less and less oppressive, and, as the afternoon wanes, the sensation of heat-induced listlessness leaves one's perspiration-soaked limbs, and the march is resumed with renewed activity.

So we leave the marsh-belts and enter the forest, golden lances of afternoon sunshine piercing the leafy depths with more and more difficulty as the huge, lliana-wreathed monsters, joining overhead, oppose an almost impenetrable mass of interlaced foliage, which produces at times a momentary gloom. In the shadow of the timber trees, albeit bushes and low jungle may often require some effort to force a way through, the tall grasses of the plains are almost entirely absent; the only growth of the kind being a low sparse variety which does not wholly cover the dark clayey soil. Spiteful thorn bushes and spiky trailers require constant watchfulness, ever ready as they are to tear your skin and rend your garments.

Now comes a "dambo," an open plain in the midst of the forest, covered with lush green

grass, the morning feeding place of eland and wildebeeste, sable and reedbuck. These expanses may be of any size, from 20 to 200 acres or more. Usually, towards the centre, you will find a slight tendency to marshiness, with probably a spring of cool, clear water, much resorted to by all kinds of wild animals. A big brown bustard rises close by as we pass along, and a brace of fussy francolins wing their rapid way to the sheltering gloom beyond the edge of the dambo. We cross the open space, noting with appreciative self-congratulation the large quantity of fresh spoor of all kinds of Zambezian game, then the path rises, so we make our way to the shoulder of one of the many suave undulations which occur in these forested regions, and finally select a site for the camping ground under the shelter of a vast Mwangele tree, as the sun nears the horizon, and the crooning of the ring-doves betokens the approach of the time for their evening drink.

So the tent party proceeds to clear a space for our stout Edgington tents. The carriers, having been shown how to arrange their loads in a neat line facing the doors, have gone off to cut wood and draw water, and preparations commence for the formation of the camp in good earnest. The fires now show bright flickering tongues of conspicuous, rosy flame. A deep luminous orange glow throws the belt of forest into dark purple relief where the sun has just disappeared with tropical suddenness below the horizon. In the overhead bluish grey a star begins to twinkle. The deep voices of the carriers, with their cheery

laughter, come echoing up from the big wood fires around which they are resting, and, as night falls, the tremulous cry of a night-jar, and the melancholy "bwé-bwé" of a wandering jackal, very shortly give place to more sinister sounds, when the long-drawn sigh of an awakening lion takes the very heart of the woods with terror.

So we have bathed and put on warm evening clothes; dinner has been served, and the cook has retired to appropriate to his own use the remnants of the feast. The whisky flask and sparklets bottle repose upon the folding table, fast growing damp in the heavy dew. The soft African night encompasses us, and we feel it. We sit back in our chairs, gazing dreamily upward at the star-studded vault, filled to the brim with unspeakable contentment. Brushed away, left far behind, are the worries and cares of the life of cities. We feel, without knowing it, that we are very near to-night to that universal mother earth from which we have all sprung—that good mother who is ever waiting to take us again to her great maternal bosom. We are unconsciously communing with that majestic mystery Nature, feeling unusually chastened, small, inconspicuous, unimportant.

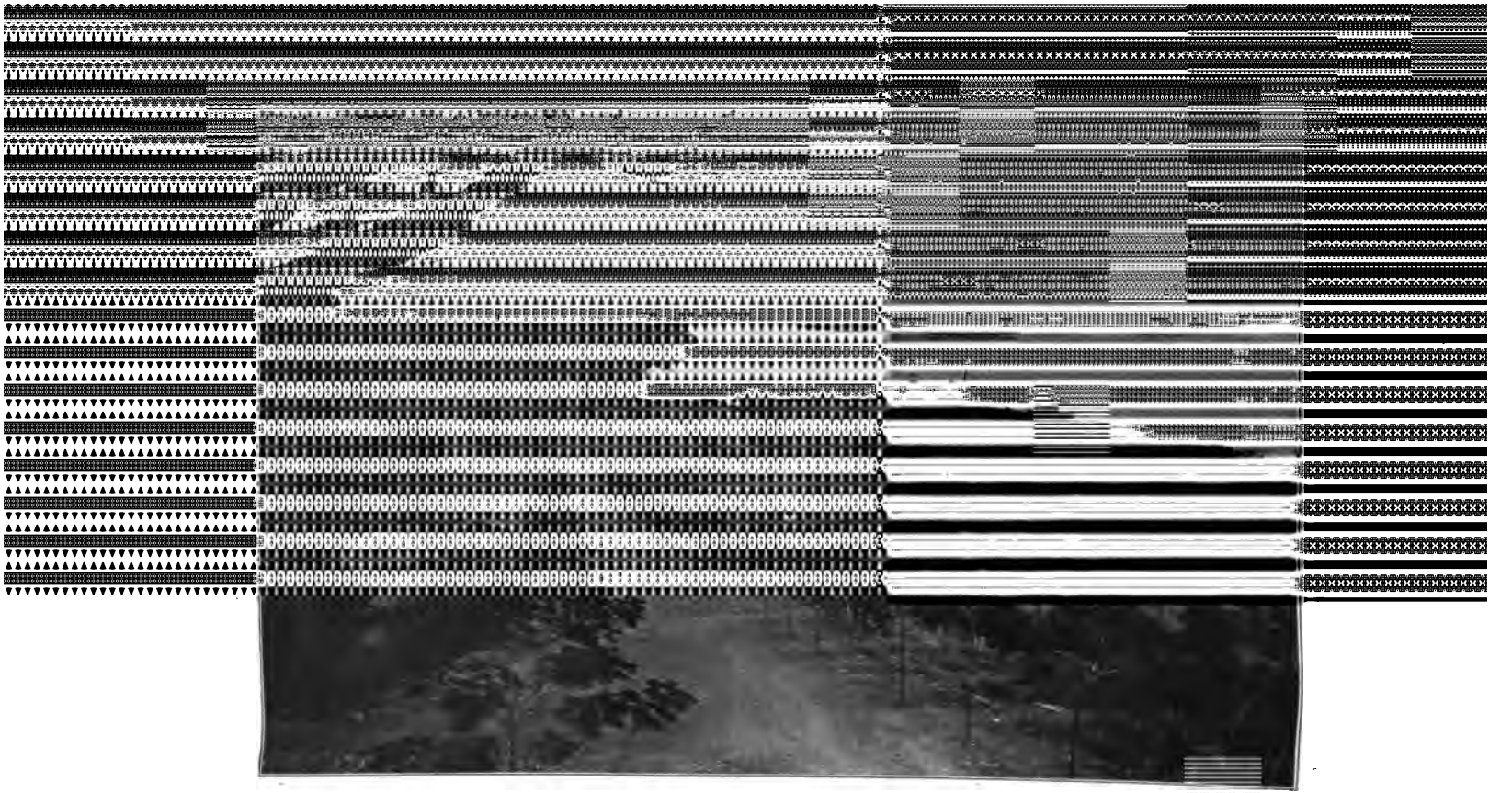
Leaving the forest country, there are several very mountainous districts, such as Morambala, Chiperoni, the broken, rocky Pinda district, and, finest of all, majestic Mlanje, that splendid barrier which looks down for many miles upon the Anglo-Portuguese frontier of our colony of Nyasaland. Mlanje is a vast mass of granite, the highest peak

rising to over 9800 feet. One of its chief claims to consideration consists in the healthiness of its temperate climate, whilst another connects itself with the well-watered fertility of its entire enormous extent. Upon its upland slopes is found the only Central African cedar, a valuable growth strikingly similar in appearance to the Lebanon variety, and yielding quantities of admirable, fragrant timber. Then, in addition, although the vegetation is not so tropical—so rich in its endless varieties of gaily coloured blooms as the lower levels bordering on the Zambezi, yet, in common with all the higher altitudes of South Central and East Africa, you find in the shelter of the massive granite boulders, and in the ravines leading down to the ever flowing streams, a wonderful variety of curious, semi-alpine growths. The grass of the mountain regions is short and green; vast expanses of homely bracken clothe the undulating plateau country, and form the hiding-places of bush-buck and klipspringer, of partridge and quail. In the caves, and sheltered by the rough boulders of the granite which lies thick on the slopes of the mountain side, leopards and hyenas have their hiding-places; and down below, where the trees grow close to the running water, large pythons may often be seen coiled beneath the limbs of the massive tree trunks. In all other respects, if you partly close your eyes so as somewhat to dim the sharp outlines of the cedars' upper branches, their resemblance to Scotch pines is so considerable that with the keen pure air of

the upland elevations and the brattle of the running water, rising familiarly from the neighbouring stream, this might indeed be a portion of Scotland—some out-of-the-way corner of the western islands. If we draw near to the edge of the plateau, and look out over the broad expanse of splendid country which lies between Mlanje and the Indian Ocean, the full effect of the still beautiful picture is considerably marred at this time of year by the misty atmosphere produced by the smoke of the winter grass fires. At the edge of the crater-like lip which in places forms the outer extremity of the high plateau, you crawl cautiously through the screen of low trees and bushes and look out over a wonderful vista of tree-covered undulation, and bare, glistening granite walls. These latter, from the edge whereon you are seated, descend almost sheer down for probably 800 feet, thence slope gradually plainward, covered with trees of inconsiderable girth, and rough with granite boulders unearthed by the terrific landslides of the past. These slopes form the purple-green foothills which, from a distance of several miles, lend so suave an aspect to distant African mountains. Away to the southward you see immense expanses of very partially forested country, with more hills and granite peaks rising in glittering, billowy confusion, and leading your eye onward to a distant point low down on the horizon where the far-away gleam of sun upon water reveals the whereabouts of the wide Zambezi. The intervening plain is sparsely inhabited, although from its condition of marked

deforestation it is certain that at one time it was the dwelling-place of some very populous native division. At present the people have, as a whole, taken up their abode upon the banks of the rivers, and left the interior, which supported their forefathers, to the unchallenged occupation of the wild beasts.

The plains of Zambezia occur chiefly to the south of the great river's delta, where there are grassy expanses so vast that they could scarcely be crossed in less than two or three long days' march. These interesting expanses, which occur for the most part in the area lying between the Inyamissengo mouth of the Zambezi and the Mupa River, and run inland from the coast probably for nearly one hundred miles, are the practically undisturbed resorts of large quantities of game, and possess for the hunter no small interest, not only on that account, but also by reason of the little that is known of them. When I described them just now as grass plains, I should perhaps have mentioned that they contain in addition extensive swampy areas full of reeds and papyrus rushes—the midday haunt of hippopotami and buffaloes—and curious island-like patches of isolated forest trees called "Ntundus." These, as described in my book *Portuguese East Africa*, are apparently composed of timber of the usual species, but inexplicably growing far apart from the rest of the forest trees, and looking for all the world like so many islands surrounded by the ocean-like plain. These also are great game resorts. At certain times of



*To face p.* 30.

THE ZAMBEZI NEAR SENA.

*Photo by Wendelsen.*

year, notably when the marula-plum ripens in August, and tempts the elephants from the fastnesses of the Shupanga Forest, you may see the coarse bark of the trees which compose the Ntundus coated with marsh mud to a height of 9 or 10 feet, where the elephants, after a satisfying roll in the neighbouring swamps, have rubbed themselves to get rid of as much of the clinging ooze as they conveniently could.

These plains are crossed all over with numbers of game paths proceeding in all directions, and so well trodden that a stranger would often take them for native made roads. For many miles you may traverse the well-known, short, nutritious-looking buffalo-grass, and very few miles—or fractions of a mile for the matter of that—will you march without finding the spoor of these sporting animals, if not the beasts themselves. Then, doubtless for carrying off the waters of the heavy summer rains, these wide, prairie-like plains are provided with numerous channels, which, at the time of year when game is the object of a visit, are usually dry, and enable stalking to be resorted to with a prospect of success which would not present itself perhaps in their absence. Two rivers traverse these plains, which are known to the natives as the Mupa and Mungari Rivers. They are shown on most maps under the names "Sangadzi" and "Thornton," but whoever may originally so have named them, the latter appellations convey nothing to the local natives of to-day,

and may safely be consigned to the limbo of inaccurate cartography from which poor Africa has so long and patiently suffered. Both the Mupa and Mungari Rivers rise, or at least pass through, a very extensive system of marsh lying close to the fringe of virgin forest which forms the eastern boundary of the continuous tree growths, and ends at varying distances from the coast. This marsh is one of the most interesting and beautiful areas with which I am acquainted in this part of Africa. To begin with, it is many square miles in extent, and runs nearly due north and south, almost as far as eye can reach, a fascinating waving sea of billowy, white-capped spear-grass, and mop-like, apple-green papyrus rushes. Away to the eastward, if you climb a short way up a convenient hyphœne palm, you will be able to follow the courses of both the rivers I have mentioned, by the low tree growths, occasionally varied by straight-trunked palms which line their banks. But immediately to the landward side of the marsh—to the westward, that is to say—the plain rises in a sort of grassy ledge, extending for possibly a mile or two before the first outlying fringe of the forest is reached. Here in the early morning, therefore, between the shelter of the forest and the morning drinking-place, may often be seen game beasts in something approaching the astonishing profusion, both of numbers and varieties, which is unfortunately now becoming so rare.

But as a sort of preliminary to discussing

game beasts, I want to say a few words, before quitting the great Mupa marshes, about the teeming wild-fowl which there find an undisturbed home.

The first time I visited this region, and long before coming in sight of the great marsh I have just described, I remember watching at the close of day long lines of ducks and geese flying overhead always in the same direction. I supposed, as the question formed itself in my mind, that they had flown inland from the not very distant coastline, and were pursuing a course toward some pieces of open water which I knew to lie somewhat to the north-east of the foothills of the Cheringoma range. A day or two later, continuing my journey to the coast, I made a camp on the edge of the forest at a point from which the apparently limitless line of sedge and papyrus stretched unbroken to the north and south. It is my custom, after seeing the camp properly pitched, if there be still sufficient light, to take a couple of men, a rifle and a shot gun, and stroll away in any direction which holds out reasonable hope of a satisfactory result. On this particular evening I crossed the mile-wide grassy ledge already referred to, and speedily found myself on the outskirts of the papyrus which bordered, together with every other kind of reed, the huge swampy marsh on its landward side. For some distance I skirted it, until at length I found a well-paddled tunnel leading towards the water, where the muddy marsh soil showed the spoor of buffalo,

waterbuck, zebra, and several other varieties of game, whilst the deeper imprints of the footmarks of the hippopotamus clove great seams in the somewhat higher levels of the soft soil from which the great rushes sprang. Following this tunnel cautiously, I soon saw the water beyond; the surface so covered with great water-lily leaves and other aquatic plants that it appeared almost like dry land save for certain unmistakable indications which I am about to describe. The open space before me might have covered some twenty or thirty acres, surrounded on all sides by the same high reed belt which, narrowing together at each visible extremity of the pool, opened out again beyond one's range of vision, where the water deepened to surround further and probably larger expanses which were hidden, as it were, round the corner. As I came to the end of my friendly tunnel, and my feet began to sink more deeply in the rapidly thinning ooze, I became aware that the surface of the water was alive with fowl. Those near at hand had already observed me, and had begun to swim slowly towards the centre. Wherever my eyes swept the surface I saw nothing but scores upon scores of upstanding anatide[1] heads. I remember making out, as I watched them (for I am extracting the list from my field notebook wherein I made it on my return to camp), both black and ordinary spur-winged geese, dwarf geese, ducks of both the red and black varieties, white-backed duck,

[1] A new word is clearly demanded here.

teal, and South African pochard. Away over towards the other side half a dozen pelicans swam leisurely on the surface; great ash-grey herons lòoked meditatively into the water at their feet, white egrets dotted the rushes, snake birds sat on the partly submerged roots, their wings held stiffly out to dry after their last plunge, whilst numbers of shore birds ran in and out at the foot of the reeds and over the secure foothold afforded by the big flopping water-lily leaves. Altogether it was a sight which one felt one would have come a long way to see. At my first shot there arose upon the air such a thunder of wings, such a hurricane of quackings and squawks and whistlings and shrillings, as I have never heard before or since. Not only from the piece of water before me, but from all the concealed surrounding pools the air was darkened and absolutely palpitated with thousands upon thousands of rapid wing-strokes. The metallic staccato note of the teal, the piercing whistle of the plover and whimbrels, and the raucous bark of the giant heron, all made together a perfect pandemonium of wild cries, greatly increased in volume by the oft-repeated, insane, half-human laugh of the brown-plumaged, strident hadada. In a few brief moments I had killed enough duck to have furnished several camps, so, laden with my spoils, I withdrew; but so astonishingly tame were the birds that, although I must have fired at least twenty shots, no sooner had I recalled my retrieving natives from the shallow water into which the victims had fallen,

than they settled tranquilly down again as though nothing extraordinary had happened.

In all the districts of Zambezia wild-fowl are found, but in no other portion of that wide region have I observed them in such bewildering numbers and varieties as in the great marshes which form, I believe, the sources of the Mupa and Mungari and probably other unmapped rivers of this little known and interesting district.

# CHAPTER III

## THE ELEPHANT

A CENTURY ago the African elephant extended his dominion over almost the whole of the continent south of the vast desert expanses of its northern extremity; whilst, in the days of the Carthaginians, it was found within measurable distance of the Mediterranean coasts, and captured and utilised by that enterprising and warlike people. Did we seek to trace this mighty pachyderm still farther back into prehistoric times, we should find, on the solemn word of some of our greatest scientists, that it existed beyond question in Spain and Sicily, as doubtless in other portions of the continent of Europe. But the unquestioned ancestor of the elephant of our day must in nowise be confused with the mastodon or mammoth—those gigantic forms which are said to have occurred at no great distance of time before the historic period; whose remains, in a perfectly preserved state, have been found in the frozen river gravels and "silt" of Northern Siberia, and whose mighty tusks, of which many are even now in existence, were fashioned into drinking cups by the cave-dwellers of France. That greatest of all living students of these matters, Sir Ray Lankester, assures us, on the contrary,

that within the human period elephants closely similar to those of our own time, far more numerous and widely distributed than they are at present, and occurring all over the earth's temperate zone, belonged to a type midway between the great beast with which we are all familiar and his remote ancestor. It is stated to have been a comparatively small creature about the size of a donkey, and not only without the prolonged upper lip or trunk of the modern elephant, but wholly destitute of the latter's often enormous tusks.

This scientific disclosure, when I read it, ruthlessly swept away one of my most cherished illusions. I had always regarded our elephants, both of the African and Indian varieties, as the descendants of either the mammoths or mastodons. I was never sure which, but I felt it must be the larger of the two, whichever that might be. I pictured to myself a mountainous prodigy about 80 feet high, covered with a matted coat of coarse, brownish hair, and possessed of huge, bow-like, outward-curving tusks, whose points finally turned inward. When at length I learned the whole truth of the modern elephant's ancestry, therefore, I realised the true inwardness of my years of melancholy self-deception.

Turning, however, from the elephant of prehistoric times to the splendid animal of the same race which still roams the forests of South Central Africa in considerable numbers, it is satisfactory to be able to say that he stands in no immediate danger of extinction. If you were to draw a circle with a centre fixed slightly to the westward

of the Lualaba River, or about 200 miles west of the middle shores of Lake Tanganyika, and whose distance was the coast at either Cabinda on the one hand, or Bagamoyo on the other, you would find that the whole of the immense space confined within its limits was still, more or less, the haunt of the African elephant; whilst beyond it, in French West Africa, Sierra Leone, Liberia, and many other immense territories from the Gambia to the Congo, as well as in Southern Abyssinia and the Nile Valley, these animals continue to exist in vast numbers.

In Zambezia itself they are found all through the dense forests surrounding Mount Chiperoni, and extending thence northward to the Mozambique district, and eastward through Boror to Quelimane. To some extent, although they have been much slaughtered of late years, they still exist in the district of Luabo, to the south of the Zambezi delta, in the Shupanga Forest, and in the high wooded fastnesses of the low range of Cheringoma. It is, however, a curious fact that the elephants to the south of the Zambezi seldom or never possess ivory of the size and weight carried by members of the herds found in the Nyasaland Protectorate, in North-Eastern Rhodesia, and on the head waters of the Congo and the Nile. I suppose the real reason for this is to be sought in the much lengthier interval during which the Zambezi region has been the scene of European occupation, and the consequently longer period wherein the herds have been eagerly scanned for the heaviest and therefore most valuable ivory.

Still, occasionally, tusks of 60 or 65 lbs. are sometimes brought to the coast, but I am inclined to regard these as the largest that are now here obtainable.

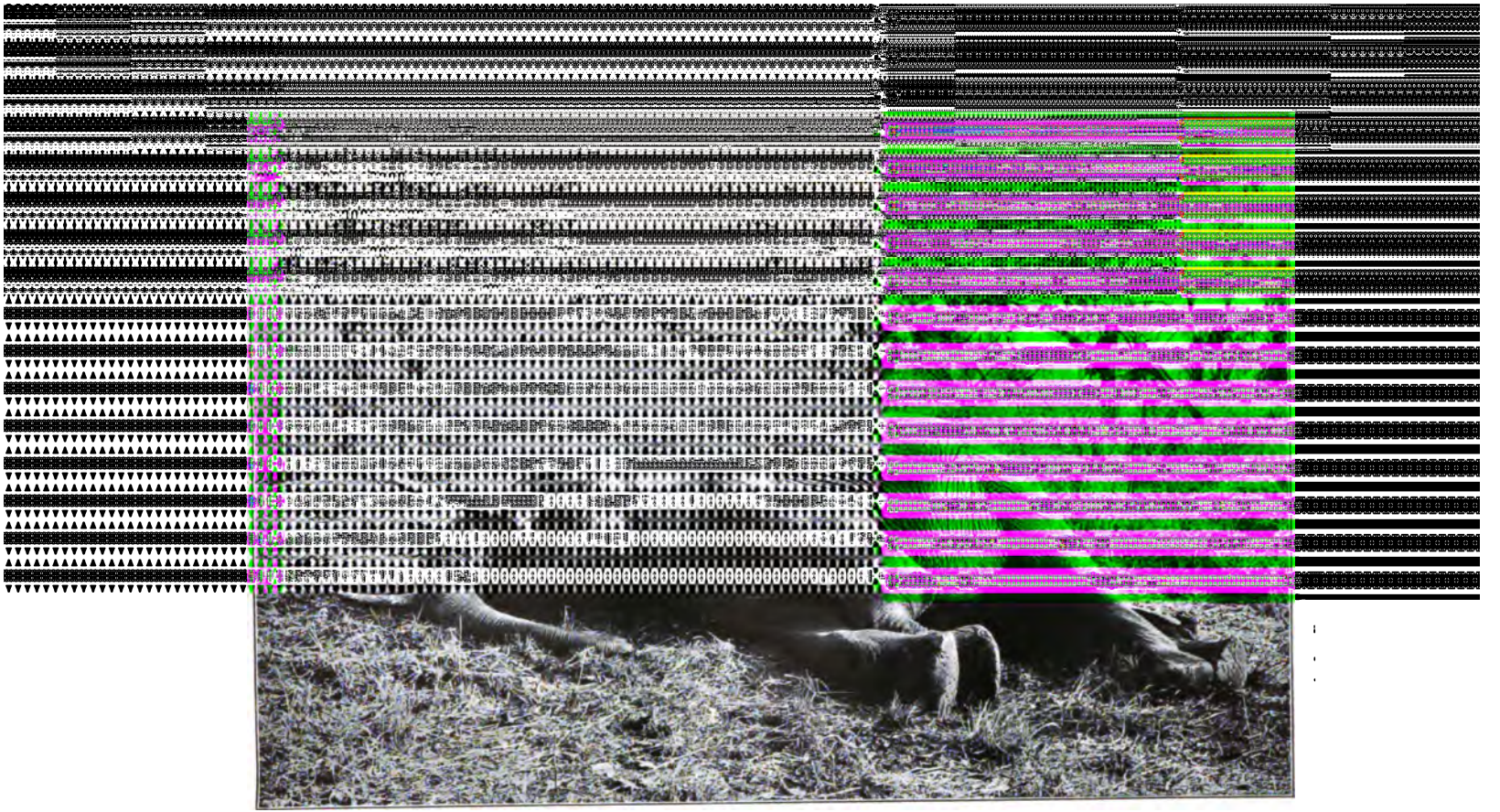
In the hot rainy months of the summer season these animals wander all over the districts mentioned, but, in my experience at least, the dry season causes them to withdraw, generally speaking, from the low levels to higher forested country, whence they rarely descend except during the seasons of the ripening of certain fruits. In Zambezia they are usually found, at the time of year mentioned, in herds of six or seven to thirty or more, and although their feeding time is chiefly at night, they nevertheless continue, when undisturbed, browsing intermittently during the day, moving slowly, in a long irregular line, unless their attention be drawn to some particularly attractive article of diet, when they draw together and investigate it, moving off again to rest, during the heat of the day, in the cool, shady depths of the denser forests. Apart from the herds, however, there are a great number of aged solitary beasts who, for one reason or another, but generally that of age, have been cast out, or have withdrawn from the society of their fellows, and these are often extremely suspicious and dangerous to approach. But in cases where the wind is steady and favourable there is probably no animal easier to get near. Even where cover may be scanty, accidental noises which would put other animals instantly on the *qui vive* are often wholly disregarded. I have even known

instances where elephants I have been following have turned and regarded me suspiciously for several minutes, but on my remaining motionless have resumed their march without making me out. But their keen sense of smell is truly astonishing. I do not know what may be the maximum distance at which they are able to catch the human taint in the air, but I have little doubt that it is fully 800 to 1000 yards, or, with a strong breeze, even considerably more. Some idea of the difficulty of their pursuit may therefore be formed when account is taken of the fact that in forest country, during the early part of the day, the light breeze is variable in the extreme, and may move in half a dozen directions in the short space of half an hour.

Elephants drink shortly after sunrise, and often bathe during the night in the rivers and pools. They are particularly fond of rolling in mud and damp, sandy soil, whilst in hot weather a favourite habit on emerging from the water is to cover the body with dust blown through the trunk. They are exceedingly fond of salt, and it is a common experience in elephant country to meet with large hills of the blind termite or white ant completely broken down to get at the salty earth within. Several other animals with which I am acquainted have the same weakness.

The African variety is of course very much larger than his Indian relative, not only in regard to the size and weight of the ivory carried, but also in his height and bulk; for whereas the latter rarely exceeds 9 ft. 6 in. at the shoulder, the former

often reaches 11 ft. at that point. Moreover, the female of the Indian type possesses no tusks whatsoever, or at best mere embryo defences a few inches in length; but those of the African female elephant are esteemed as furnishing the finest quality of ivory obtained from this animal. I remember seeing one single male tusk which had been brought for sale to Zanzibar some years ago, and which, so far as I remember, weighed 285 lbs. I speak without authority, but I believe I am right in saying that this was the largest tusk recorded at that important centre of the ivory trade. Those of females are rarely found to be over 17 or 18 lbs., but their quality is far finer than bull ivory. Returning for a moment to the question of the height of these animals, I understand that one of the African elephants exhibited at the Natural History Museum at South Kensington rather exceeds 11 ft. at the shoulder, a measurement regarded by the Museum authorities as somewhat exceptional. I do not know in what way this opinion has been arrived at, of course, but to my mind the dimensions of the animal in question are in no way unusual. I have on two occasions shot elephants of greater height, and I am perfectly sure that I have seen others which, if secured, would have given measurements decidedly exceeding that of the South Kensington Museum specimen. The average weight of a full-grown African elephant bull, though extremely difficult to ascertain correctly, has been estimated as being close upon 7 tons.



*To face p. 42.*

ELEPHANT.

This splendid type, in addition to being much larger, differs very widely in form from the Asiatic variety. In the latter the back, which so readily fits the howdah, is convex, and the shoulder much lower than the point of the spine. In the African beast, on the contrary, the highest point is the shoulder, and the back is strikingly concave, whilst from its highest point it slopes almost sharply down to the root of the tail. It has, therefore, been supposed that for that reason it would not lend itself to utilisation in captivity to the same extent, and for the same purposes as the Eastern variety, so long and so familiar an object of interest to visitors to India, Burmah, the Zoological Gardens, and elsewhere. Another peculiarity consists in the differences presented by the shape of the skulls of the two animals, as also in the sizes of the ears,—those of the African elephant being so enormous that the edge, when pressed against the side, indicates a spot through which a bullet may be directed to the very middle of the lungs.

As a general rule, elephants are timid beasts. The herd on winding human beings almost invariably retreats, as also do solitary animals in most cases. This timidity of disposition cannot, however, be regarded as invariable. Instances have occurred of individuals being attacked and very seriously—in some cases fatally—injured, by the charge of unmolested elephants. The case of a friend of mine who, while travelling up to an administrative post to which he had

been appointed in one of the districts to the west of Lake Nyasa, affords a striking example of this. He was reclining in his machila [1] when suddenly an immense, solitary bull attacked him, and so badly injured him that for many months a valuable life hung in the balance. He neither saw the great beast before nor after the attack. The machila was thrown down as the carriers fled, and at the same moment with a shrill trumpet the elephant seized both the machila and its occupant in his trunk, and proceeded to wreak its unreasoning vengeance upon them. How the unlucky victim escaped with his life must ever remain a mystery, since he lost consciousness immediately, only regaining it some hours afterwards to find himself in a sorry plight, and with most of his bones broken. But my own opinion of such mishaps is that they are usually perpetrated by elephants which have been repeatedly hunted and, it may be, wounded. It is generally known that this animal's memory is an extremely retentive one, and thus, on the presence of a man making itself felt, it is quite probable that the recollection of former suffering may arouse the beast to a frenzy in which he may viciously attack the person approaching him. I have been informed that the elephants preserved by the Government of the Union of South Africa in the Cape Province have become exceedingly dangerous; so much so that on detecting the approach of a pursuer they have

[1] A hammock slung upon a pole and carried on the shoulders of natives.

been known to turn *en masse* and hunt him. The seriousness of such a position will be the better appreciated when it is explained that so dense is the jungle in which these animals occur, that it is only possible to follow (or escape from) them along the tracks which they themselves have made.

Sir Samuel Baker was of opinion that the elephant does not reach maturity until between his fortieth and fiftieth year, and deduces from certain doubtless well-pondered considerations that he may reach an age of one hundred and fifty years or over. With this view I entirely concur; indeed, I think that his estimate of the length of the elephant's existence may be taken to be by no means an exaggerated one, judging by some of the immense wrinkled old beasts which have passed close to me from time to time, and have seemed to suggest, by their air of antiquity, that they had long passed their one hundred and fiftieth birthdays.

Their diet is surprisingly varied, and consists of many different kinds of succulent roots, foliage, fruits, and the inner bark of certain trees. Moreover, as this animal feeds chiefly by night, one more proof is afforded by this fact of the astonishingly penetrating scent which, during the dark hours, guides him in his choice of the trees he particularly affects. He is an inconsiderate and wasteful feeder, tearing down large branches, and leaving the greater portion of their foliage untouched, as he will also strip quantities of bark off forest trees, of which he will daintily

consume inappreciable morsels. I remember, a few years ago, watching for some time a herd of elephants, of which I had succeeded in approaching to within a very short distance. It was during the period of the ripening of the Marula plum,[1] of which elephants are inordinately fond. At a distance of about 80 yards from where I was concealed a fine tree full of this fruit was growing. Around it the great beasts collected, looking upward at the tiny golden globes, which were, however, somewhat beyond their reach. At length a large female backed some few yards, and slightly lowering her massive head she charged the tree, ramming it with the centre of her forehead. The blow was terrific, and, although the tree successfully resisted it, the shock was immediately followed by a plentiful shower of plums, which the surrounding elephants proceeded to eat, picking them up daintily one by one, and conveying them into their mouths after a moment's scrutiny. I have often thought that had I been in the tree at the moment of impact I should have had an uncommonly good chance of being shaken down, so violent was the blow it received. The above incident is not unlike one which Baker himself witnessed, and is doubtless of constant occurrence in the elephant's daily experiences.

From the foregoing it will perhaps have been understood that the pursuit upon foot of an animal endowed with such an astonishing—indeed, sometimes almost uncanny degree of intelligence

[1] *Trachylobium Mozambicensis.*

and vast physical strength and endurance, is an undertaking which demands the utmost care and caution, and which should never exclude any precaution calculated to minimise its many dangers and to assist towards a successful issue.

Before the introduction of firearms into Central Africa, and indeed to some extent at the present time, these great animals were captured by the native tribes in various ways. There was, first of all, the pitfall method. The pits were shaped like the letter V, and were about 13 or 14 feet in depth. As many as ten or a dozen of these would be prepared, as a rule near to a river or other much frequented drinking-place, and carefully concealed by light branches and reeds sprinkled with earth. The herd, moving by night, and arriving in the vicinity of these pits, the first crash and loud roar of dismay, betokening the capture of one of its members, would occasion a mad stampede in which one or two more might be caught. The shape of the hole, bringing all the four feet together, rendered the animals powerless, in which condition they were speared to death the following morning. Another method of compassing their destruction was to surround the herd with a ring of burning grass or jungle. Through this, after having been reduced to a condition of abject panic, the animals would at length charge, to be speared by scores of waiting savages at a moment when, blinded and confused by the fire and smoke, they were too

terrified and paralysed to offer resistance. Again, in certain portions of the country, an enormous iron weapon, like the blade of a gigantic spear weighted with a heavy mass of clay, is dropped either by a concealed native from a high tree, or so fixed to a horizontal limb that, on the disturbance of a cord stretching across the path, it is displaced and falls, if favourably, just at the junction of the head with the elephant's body. The animal so stricken rushes madly through the forest, each movement burying the terrible point deeper and deeper in the flesh, until at length the victim either bleeds to death or succumbs to injury resulting to the spine. Writers on North Africa tell of an extraordinary race of Arabs, formerly dwellers on the borders of Abyssinia, who hunted the elephant on horseback with no other weapon than a heavy two-edged sword. Their method consisted of following the herd until close up, when the hunter by a slashing blow would sever the main tendon of the elephant's hind-leg, thus rendering it powerless to advance or, indeed, to move. It was then despatched. This has always struck me as being a magnificent performance, and one in comparison with which the finest achievements of the Spanish bull-ring pale into insignificance.

The hunting of elephants according to modern ideas is assuredly one of the most exciting and engrossing of all forms of sport. Not only is their pursuit attended by an amount of fatigue and, at times, hardship which would not be

experienced in the case of any other animal, but the strain upon the nerves, produced by long periods of excited expectation, is such as to prove trying to persons of an excitable temperament, for, of a truth, no other pastime of which I have knowledge and experience requires cooler self-possession, or more of the exercise of that inestimable quality called presence of mind. It is a sport in which the successes are few compared with the failures, and one wherein there are not many trophies gained which do not recall hours and hours of strenuous toil, of hunger and thirst (especially the latter), of hope deferred, of discouragement bordering upon despair, but all richly, amply atoned for by the hour of success so long in coming.

The usual practice, upon finding oneself in the haunts of these animals, is to rise some time before dawn and, accompanied by one or more good hunters experienced in tracking them, and several additional reliable followers armed with knives and axes for cutting out the tusks, set out in quest of fresh spoor. If you are fortunate, and recent traces—that is to say, tracks of four or five hours old—be crossed, these would be quite good enough to follow, and should as a rule bring you up to where the animal may be found resting by ten or eleven o'clock. At this time the sun's warmth, even in winter, becomes considerable, and the elephants, disliking heat intensely, having fed through the night and drunk at dawn, are now disposed to rest. For this purpose they usually

select the cool depths of the forest, or a shady group of well-grown trees, and remain in the shelter of the thick foliage until early afternoon, when they move off once more.

Proximity to a herd which has been tracked during the early hours of the day may usually be determined by the warmth or coolness of their mountainous droppings, by the moistness of half-masticated pieces of bark or leaves which have fallen from their mouths as they passed along, by the appearance of the branches which they have torn down, and by the strips of bark peeled off the trunks of the trees. Additional assistance may be derived, especially in grass-covered country, from an examination of the stems and blades of the grasses trodden under foot, account being taken of their moisture or dryness. In thick jungle the utmost caution must be observed, a handful of crushed leaves or, better still, a small bag of flour being constantly shaken in the air for the purpose of detecting any momentary change in the light, variable woodland breezes.[1] Care is especially necessary to avoid stepping upon dry pieces of stick or leaves, stumbling, or advancing in any but the most noiseless possible manner. In favourable circumstances it is perfectly extraordinary, and at times a little disconcerting, how close one can come to a number of these animals without in any way exciting their suspicions.

On one occasion, in the Forest of Shupanga,

[1] Perhaps the best wind-gauge of all is a marabou stork's tail-feather.

I had succeeded in getting up to a number of elephants which were resting, as I have described, about eleven o'clock in the forenoon. They occupied a dense piece of forest which, thanks to a steady breeze, I was enabled to reach without disturbing any of them. Having crawled noiselessly some distance into it, plainly hearing the curious, loud intestinal rumblings which betoken their nearness, I raised myself, at length, behind the trunk of a sheltering tree. I found about a dozen elephants in front of me, standing about in various attitudes, the nearest being no more than 15 yards away. Some were fanning themselves with their enormous ears, others swaying from side to side supporting their immense weight alternately upon either foot. A young female away to the left caressed a small, apparently newly-born calf with her trunk, whilst she swung her off fore-foot backwards and forwards like a pendulum. Look where I would, however, to my growing disappointment, I could see nothing but females, until it seemed to me that on the far side of the group I caught sight of the gleam of what appeared to be larger ivory. Slipping down to hands and knees again, I commenced a careful crawl in a *détour* to get on their farther flank. It was a tedious and painful business, and my progress was slow. At length, after carefully removing a piece of stick to prevent it from snapping under my knee, I glanced cautiously up, to find that I was crouching almost under the stern of a large wrinkled elephant apparently of great age, which

was certainly not more than 3 or 4 yards from me. In trying to edge away my foot caught in some kind of a trailing creeper, and at the slight noise the great beast wheeled round, spreading her enormous ears like two sails, and raising her trunk suspiciously to smell the air. It was an anxious moment. Had she advanced one step I must have fired instantly, and, apart from her sex, her tusks were small and insignificant, but as I remained absolutely motionless, somewhat screened as I was by the low grass and brushwood, she quite failed to discover me, and after a moment or two, which I frankly confess seemed to me to be much longer, she dropped her ears and trunk, wheeled round, and strolled away a few paces. In the end, to my great mortification, I found there was no bull with this group of elephants, so I was forced to return to camp empty-handed. That was bad luck, but not so bad as that which I experienced a few years ago at the southern end of Lake Nyasa.

I had just concluded an official tour which had led me across that portion of the African continent between the coast at Ibo and the lake I have named, and, stopping to wait for one of the Protectorate gunboats which had been kindly sent for my expedition by the Governor at a place called Fort Maguire, a large and populous community of interesting Mohammedan Yaos, the latter complained to me of the depredations committed by the elephants among the maize and millet fields. They even showed me the

footprints of a number of these animals which had passed through the cultivation the preceding night. I thereupon resolved to endeavour to bag one the following day.

Starting away from the settlement while it was still starlight, accompanied by several native trackers possessed of local knowledge, one of whom was attired in quite a fashionable frock coat, we quickly struck the fresh spoor of five bulls. After leading through the outskirts of the gardens for some distance the foot-prints entered the jungle and led towards the densely forested promontory immediately to the south of Makanjira's old stronghold. It was here quite apparent, from the vast quantity of various indications, that many elephants frequented the neighbourhood, and after a very easy piece of tracking, whilst we were intent upon examining a piece of freshly chewed bark, a slight swishing noise attracted our attention a little to the left of our line of advance, when suddenly the leafy forest screen parted and, at a distance of 30 or 40 yards, a large elephant followed by several others advanced directly towards us. He was a fine beast, of great height, and from his lips there projected two beautiful even tusks of yellow ivory, possibly weighing sixty pounds apiece. I saw in a flash that he had not detected our presence, and, as we crouched down in the covering brushwood, I determined to wait until he should pass and endeavour to secure him with a temple shot.

But I had reckoned without the wind. Scarcely had this plan of attack suggested itself

than I heard a short trumpet, and looked up just in time to see his great, grey stern disappearing into the forest whence they had emerged. To take up the spoor of the fleeing elephants was the work of a moment, and in less than an hour we were once more drawing up to them. Again the advance was regulated at a slow pace as, listening intently, step by step, we quietly drew near. All at once, down on our left, we heard an elephant blowing through his trunk; a sound not unlike some immense stallion blowing through his nostrils. I took my double ·450 cordite rifle and, followed by the hunter bearing a spare weapon, advanced in the direction of the sound. Presently, down in a hollow still more to our left, we heard the well-remembered rumbling and, advancing to a cover of brushwood, frequently testing the light, variable morning breeze, I reached a point on the edge of the slight declivity at the foot of which, and at no greater distance than 40 yards or so, the five elephants were standing listening intently and evidently very suspicious. Alas, they had halted in grass which reached a point high enough completely to mask their ivory, and, as we looked down upon them, we sought in vain for some indication to show which was the fine tusker who had displayed himself to us so short a time before. There they stood, one or two with ears and trunk extended to catch the slightest sound or taint, the remainder with an expression as of heedless contempt for their over-cautious companions' ill-timed suspicions. Which was the big one? Some few moments passed thus until, after a long

time as it seemed to me, a slight movement exposed a dull gleam of ivory in the high herbage as an exceptionally large beast took a step or two forward. I felt sure he must be the tusker, and my opinion was shared by my Yao companion. I took a rapid sight, therefore, upon the depression in front of the ear which marks the temple and fired. The huge creature instantly fell to the shot, whilst his companions wheeled round and, trumpeting shrilly, dashed off into the jungle and were speedily lost to sight.

We hurriedly descended and reached the fallen monster, but one glance was sufficient to fill me with disappointment and exasperation. I had shot the wrong one. Instead of the splendid tusks I fondly hoped I was adding to my collection of ivory, my gaze fell upon two small insignificant objects which on being weighed barely turned the scale at 22 lbs. apiece. It was bad luck, of course, so there was nothing for it but to combine one's entire stock of philosophy and Christian fortitude, chop out the tusks and go home. That night the gunboat was due to arrive, and actually did so the following morning, so I never had another chance to try conclusions with the big tusker.

The nickel-covered ·450 bullet killed this elephant instantly. He required no second shot, but I would here indite a word of advice to sportsmen which may save much disappointment, especially with those who habitually hunt elephants with rifles of small bore. If, on having dropped your beast with a head shot, he should so much as

move by the breadth of a finger in any part of his vast body, run speedily but quietly behind him and fire a shot straight through the centre of the top of his skull. This will make assurance doubly sure. I have known cases where elephants have fallen with a bullet in the head apparently stone dead, and the gratified hunter, having dashed after the herd to get, if possible, another shot, has returned to find that the beast was only stunned by a faultily directed bullet, and has got up and gone off, ultimately to recover and very likely to prove extremely dangerous and vicious to future hunters.

The elephant killed by me on this occasion was a splendid animal, and one of the largest I have secured. His measurements taken on the spot were as follows: Shoulder height, 10 ft. 11½ in.; extreme length from end of tail to tip of trunk, 26 ft. 2 in.; circumference of left ear, 15 ft. 9 in.; circumference of left fore-foot, 4 ft. 6 in.

One of the most unusual of my hunting experiences connected with elephants took place in the Cheringoma Mountains south of the Zambezi on the occasion of my last hunting excursion into that interesting region. At a certain point on the plateau of this range, the elsewhere consistent forest breaks up into a number of open, park-like expanses whereon the grass is weak and thin, and the exuberant growths which form the impenetrable jungles of the lower forest do not form such a hindrance alike to movement and vision. On the occasion referred to my camp was pitched

just on the inside of the forest, which here consisted of stunted trees, on the edge of a wide open space in the middle of which was a marshy bog surrounded by high grass and rushes, a mere muddy, stagnant, weed-covered pool. The moon, I remember, was very near the full, and the calm beauty of the African night shed a soothing influence, heightened by the softening half-tones of the clear moonlight. I must have been asleep some time, for after a day's elephant spooring one turns in early, when I became conscious of an excited whisper at the doorway of my tent. "Ngunya, Ngunya, etébo zinawa" (Sir, Sir, the elephants are coming). To persons living in Europe, the even current of whose lives is seldom ruffled by events of more serious import than a descent of poachers on a well-stocked covert, or the nocturnal bursting of the bathroom cistern, the intense excitement of so momentous a communication, especially in the middle of the night, may not be fully appreciable, but, accompanied as it was in this case by the weird, romantic environment of the soft African night, and the charm of the mysterious forest, he would have been a laggard, indeed, who did not leap from his bed and, in nothing more than pyjamas and foot-wear, seize a brace of rifles and hurriedly seek the open. For a few moments I perceived nothing, as my servants and hunters, finger on lip, faced towards the dusky forest listening intently. Then there reached us a low, querulous whimper, as of a female calling to her calf, and immediately afterwards a swishing of leaves followed by the

crash of a breaking branch. I estimated that the elephants must still be some few hundreds of yards away, and this proved to be the case, for, gazing intently along the line of forest trees, I suddenly saw two or three advance into the open and enter the belt of high rushes which fringed the water. These were followed by others in twos and threes, until between twenty and thirty elephants, looking surprisingly small in the deceptive moonbeams, had plunged into the papyrus and reeds, in which they were practically engulfed. I immediately struck off into the trees to make the necessary *détour* to approach them, but as I did so heard the unmistakable sounds of still more members of the herd in the forest, where they had lagged behind. I therefore concealed myself in the shelter of some brushwood and awaited events. From the noises borne towards me by the steady night wind it was apparent that they were slowly approaching,—that is to say, they were feeding leisurely towards me in a way that would bring them across my front. Gradually the huge beasts drew nearer, until their internal stomach rumblings were perfectly audible, as was also the hoarse rattling noise made when they blew through their trunks. At length, a little to my right front, the movement in the grass and rushes became more marked and a black, sinuous, snaky-looking trunk appeared over the concealing herbage, followed by another and another. The loud sucking noise made by the withdrawal of their immense feet from a depth of many inches of adhesive mud grew

louder and louder, and at length the grass opened and an immense head pushed its way through. This animal I took to be an old female, as the ivory she carried, so far as it was visible, seemed insignificant. It was difficult to judge sex by her height, as one could not be sure how much leg was embedded in the mud. She continued on her way quite unconscious of danger, and was followed by two other elephants,—one a young bull with small but even tusks, and another whose ivory I was unable to distinguish. At that moment my hunter touched me excitedly on the knee, and pointed to where the first of the herd had emerged from the forest at the moment when a large bull with fine ivory strolled leisurely out from the trees. Even at the distance at which he displayed himself I saw that he possessed fine massive tusks, and I was consumed by an agony of doubt as to how to get a shot at him. Almost in less time than it takes to write the words he plunged into the rushes and was lost to sight as he mingled with the other members of the herd. It was quite clear that the rearward elephants would follow in the path of those now passing me, so, hastily abandoning my position I took a rifle in each hand and dashed off through the trees, if possible to head them off. Arrived at a point near the end of the marsh where the rushes dwindled to a height no longer capable of affording cover to so large an animal, I again concealed myself, and waited their coming with an excitement almost painful in its intensity. At length, after what to me appeared a long wait, but was probably not more

than a few minutes, they began to appear 70 or 80 yards away, and nothing I have ever seen before or since in the wilds of Africa ever equalled the grandeur of the sight they presented. They appeared to glide noiselessly out of the rushes, and, looking black and massive in the moonlight, the vast rounded forms came almost straight towards me, quietly, and without any appearance of haste. It was ghostly, unreal, weird. I edged quietly away to get more on the flank as the dark mass drew slowly nearer. At that moment a loud, shrill trumpet screamed out from somewhere to my right, and, glancing up, I saw that all the foremost of the elephants had wheeled round and, with trunks aloft and ears extended, were gazing in the direction of my tent. There was one moment of hesitation, and the next they had, as it seemed, disappeared. They simply appeared to melt away, and the only sign which marked their progress was an occasional crash far off in the forest as they dashed away in full flight. I never fired a shot, and, although as soon as it was light I took up their spoor, I never saw them again. I have no doubt that whilst I was anxiously waiting for them to pass me, one of those exasperating, light, variable currents of baffling air so common in the high forest country, had betrayed the whereabouts of my hidden carriers. The effect was instantaneous. Such are the heartrending disappointments for which the hunter of elephants must be prepared.

I used to suppose that there was no reason why African elephants could not, in course of time,

come to be captured and domesticated or, at all events, trained to fulfil some useful mission in the Great Continent's future development, much in the same way as has been done in India; but I have since come to feel that the difficulties in the way of such a project would be practically insurmountable, and, even if it proved successful, it would be hampered by so many disadvantages as completely to nullify the benefits hoped for.

To begin with, the conveyance of a complete kedah establishment to capture the great beasts, from India to Africa, accompanied as it would necessarily be by a numerous and highly paid trained staff, would be excessively costly. In the second place, the Indian animal being much smaller, it is doubtful if he would be capable of controlling his larger, fiercer, and more active African congener. Moreover, as has been pointed out by competent authorities on the subject, the herds of African elephants having such an immense radius of movement, the difficulties of their capture would be heightened, and the usual deliberate arrangement of the kedah establishment rendered practically impossible. Finally, even if the domestication of African elephants proved successful, the necessary outlay for their maintenance would render their employment for ordinary purposes far too costly; for whilst an elephant consumes 800 to 1000 lbs. weight of food per day, and will only carry about three-quarters of a ton, the same weight can be conveyed by twenty-eight porters, whose daily ration of rice or maize would not exceed 56 lbs.

At the same time, some success has attended the efforts of the authorities of the Congo Free State in this direction. These, by dint of capturing the animals at an early age, have been successful in rearing and training them in various useful branches of station and district work. There is even understood to be a *dépôt* for the reception and education of young elephants on the River Welle, and already a number of them, variously estimated, are stated to be in active employment. In this way, of course, some considerable measure of success may be attained, but as to whether the practice can ever be adopted on a large scale must depend upon the adaptability of the African native as a mahout, and the suitability of the various regions in which the beasts may come to be employed from the point of view of yielding sufficient fodder for their daily needs.

# CHAPTER IV

## RHINOCEROS—HIPPOPOTAMUS

THE eminent French naturalist Cuvier describes the black rhinoceros, the only variety existing in the districts to which this book devotes itself, as an animal of solitary habits, and much fiercer than the other four known members of this unlovely and unnecessary, if interesting, family. Speaking of these beasts as a whole, the authority mentioned draws particular attention to the singular peculiarity, not widely known, found in the so-called horns. As a matter of fact, the terrible weapons which the rhinoceros carries upon his thick nasal bone are not composed of horn at all. They are formed of hairs—long, coarse hairs glued, as it were, together by some curiously powerful conglutinating substance, and presenting, except at the base, all the appearance of horn of the hardest description. If, however, a section of this substance be examined under a microscope, the capillary tubes composing it, glued together, are at once readily discernible. The foregoing is perhaps the chief peculiarity of this remarkable animal, the singular position of whose defensive weapons doubtless inspired the legends of ancient times which con-

nected themselves with that fabulous form, the unicorn.

The variety found throughout Central Africa, and, I believe, as far south as the North-Eastern Transvaal, is identical with that known to all great game hunters as the "Black Rhinoceros," although its colouring is not strikingly dissimilar from that of the so-called "white" variety. It was, I think, at one time supposed that its horns were equal in point of length, and several old writers on the fauna of Africa have adopted this impression, of which I have, however, never yet seen an instance. As a rule the horns found on the Zambezian rhinoceros are smaller than those carried by animals found farther north, the largest shot by me within the district we are considering measuring 25¼ and 12⅝ inches anterior and posterior respectively. This, for the Zambezia region, was an exceptional measurement, anterior horns as a rule seldom exceeding —or attaining—20 inches. I remember reading in one of Mr. F. Vaughan Kirby's books a statement that this at one time prominent hunter had found in some village, in a neighbouring territory through which he happened to be passing, a pair of horns measuring 29½ and 19¼ inches. This measurement I have never seen approached, and, if no mistake was made, I can only regard it as probable that the horns were brought from some distant part of the country. In British East Africa, however, specimens of this animal have been shot possessing horns greatly exceeding in length those I

have mentioned. On the slopes of Mount Kenia, it is stated, a fine bull was recently killed with a horn measuring slightly over 40 inches, and even this measurement is said to have been exceeded in the same part of the country.

The black rhinoceros is a large and powerful beast, probably weighing at maturity almost if not quite three tons. Only one calf is produced by the female at birth, which takes place, it is believed, during the early rains. The little beast rapidly acquires the necessary activity to enable him to follow his mother at a great pace, and is a perfect miracle of disproportionate ugliness for several years. But, considering its immense and somewhat unwieldy size, the speed with which the rhinoceros can get over the ground is extraordinary. He moves at a bounding gallop, not unlike that of an immense pig. Baker points out in one of his publications that the length of the hind leg from the thigh to the hock is the factor which affords the tremendous springing power which is the secret of this animal's vast speed, and with this I quite agree, as otherwise it could never reach such rapidity of motion with the remarkable smoothness which is another of its peculiarities.

Possessing powers of scent almost if not quite as keen as those of the elephant, great quickness of hearing, unbounded irascibility, and the curiosity of an ill-regulated woman, the rhinoceros has nevertheless, fortunately for mankind, been furnished with very poor eyesight, a peculiarity to which many a hunter doubtless

owes his life. As a general rule he avoids swamps, preferring dry, somewhat elevated tablelands, or belts of thorny jungle at the foot of a mountain range. Of extremely regular habits, he drinks before dawn and after sunset, frequenting as a rule the same watering-places. After the morning drink he feeds until as late as eight or nine o'clock, or on wet or cloudy mornings somewhat later, and then, entering some dense jungle or thorny belt, he proceeds to take his midday siesta. In spite of this usual practice, however, I have seen rhinoceros lying asleep, stern on to the wind, under the shelter of a tree in open grass country as late as noon. Contrary to the universal habit of charging on scent with which these animals are usually credited, in the case I am referring to the animal jumped up and trotted briskly away down wind, his head and tail in the air, without any hostile demonstration whatsoever.

The favourite food of these beasts consists of the lower shoots and foliage of various trees and shrubs. Great predilection is displayed, in portions of the country where it occurs, for a kind of thorny acacia; he also devours certain roots, and a low-growing ground-plant found on wide, treeless plains. Acacias, however, often denote the presence of rhinoceros, exhibiting clean-cut depredations where the powerful, scissor-like teeth and prehensile lips have produced a topiary effect similar to that which would have followed the application of a pair of gardener's shears. With curious regularity,

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RHINOCEROS.

moreover, the rhinoceros, if undisturbed, visits, over considerable periods, the same places for the purpose of depositing his dung, which may sometimes be found in great piles, and forms another valuable indication of his presence in a district. It closely resembles that of a hippopotamus, but is somewhat darker in colour.

As I have already stated, the haunts of rhinoceros are to be found in sparse upland forest, on almost bare plains, and in rocky, thorny jungle. It was in such surroundings as the last-named that I came upon a very satisfactory bull in the beautiful Gorongoza region a few years ago. I was returning to my main camp on the Vunduzi River, after an unsuccessful search for elephants, and as usual was marching, with Lenço my elephant hunter, some few hundreds of yards ahead of my small party of native carriers. The Vunduzi, at the time of year at which the incident took place—namely, the middle of the winter season—is a small silvery stream of clear, cold water, splashing its musical way through a splendid confusion of big granite boulders, and under a leafy canopy of forest green. Here an open, grassy space where you could look upward at the mountain's scarred, precipitous sides; there a stretch of thin forest where the stony ground yielded but poor nourishment for the multitudinous grasses which struggled for life. Small tongues of glistening sand pushed their way into the crystal-clear water, and on one of these, at an early hour of the morning, we found the fresh spoor

of a passing rhinoceros, whose three-horn foot divisions rendered the identification of the beast a matter of ease. Lenço's eyes sparkled as he whispered "Pwété" (rhinoceros), and proceeded in his inimitable manner to take up the spoor. For some distance this led down stream, and here the great beast had evidently browsed his way leisurely along, morsels of leaves and twigs found in the track being still wet with his saliva. Noiseless as shadows we now struck into the woodland, passing through clumps of feathery bamboo, and skirting great earth-red ant-hills. Here and there, where we traversed hard, stony ground thinly covered with fallen acacia leaves, the tracking became difficult, even the great weight of the rhinoceros appearing to make little or no impression. Still the hunters held steadily on. An hour passed in this way, when at length, approaching a thick patch of thorny bushes, my dusky companion stopped and, head on one side, listened intently. As he did so his usually tranquil features leaped into animation, and, pointing a lean but authoritative finger at the cover, he nodded shortly to indicate that the beast had evidently fixed upon it for the enjoyment of his siesta. Upon this point we were not left long in doubt, for, with a sudden crash, he charged out of the bushes and passed us at a great rate, producing as he did so that curious whiffing sound which has been likened with some justice to the exhaust of a small steam-engine. As he appeared at first to be coming almost over us, Lenço evi-

dently thought, as most natives do, that he was attacking us, but the merest glance was sufficient to show that nothing was farther from his mind. I had just time to push up the safety bolt of my ·450 cordite rifle, when he was almost abreast of us, and my nickel-covered bullet caught him fair and square in the shoulder. He fell heavily, squealing like an immense pig, whereupon a second bullet behind the ear put an end to his troubles for good. Luckily for us, this beast did not appear to be attended by the almost invariable rhinoceros-bird (*buphaga*),[1] or we should in all probability never have seen him. I concluded that he must have winded us when half asleep, and his invincible curiosity then got the better of him.

Round about the southern slopes and foothills of Gorongoza Mountain, which I have endeavoured to describe in my book, *Portuguese East Africa*, there existed a considerable number of rhinoceros a few years ago, judging by the frequency with which their spoor was encountered, and only a few days after the incident I have just related, another very fine bull was lost by me in the same district. Curiously enough, on this occasion I had traced him for several miles down to high, reedy grass bordering somewhat swampy country, where, in the usual course of events, rhinoceros would not be expected to occur. Here the exasperating "rhino-bird" undoubtedly alarmed him, for I only got one glimpse of the massive body and horns before

[1] The Ox-picker.

he plunged into the undergrowth and disappeared.

I have shot several specimens of the black rhinoceros in the northern portion of the Quelimane district, where they are still to be found in considerable numbers. Here this animal displays to the full his annoyance at the proximity of caravans of natives, a peculiarity by no means confined, as supposed by some, to those of British East Africa. I remember a story, which was told to me by one of the Portuguese administrators in the Lugella country, of a misfortune which happened to his accompanying kitchen-staff on an occasion when he was travelling in the interior. The pot-carriers seemed to have got in the way of a large rhinoceros, which charged the *batterie de cuisine* to such purpose that, as the unfortunate proprietor told me almost with tears in his eyes, not content with breaking by his tremendous impact the greater part of the sauce-pans and kettles, he added insult to injury by retiring at full gallop with an unreplaceable aluminium stew-pan impaled securely upon his anterior horn. I have often tried, with but partial success, to picture to myself the dissipated appearance which the rash beast must have presented as he dashed through the forest thus Quixotically helmed.

Hunting some few years ago in the southern part of the Quelimane district of Zambezia, I encountered a very large bull, the possessor, indeed, of the finest pair of horns it has been my good fortune to obtain. His spoor was first per-

ceived close to water, and for a time I was uncertain as to whether it might be that of a hippopotamus. As soon, however, as I got on to drier ground I saw unmistakably the kind of beast we were following, and lay out along the tracks with an eagerness which my native companions—raw Zambezi villagers—were far from sharing. After a few miles of easy and rapid progress the spoor led us to the edge of the usual thorny grass patch, and one of so gloomy and forbidding an aspect that it seemed a likely enough resting-place for the animal's daily nap. It was very thick, and appeared to me to be one of the least desirable of places into which to follow a dangerous beast. I therefore swarmed up a neighbouring palm tree, and, having ascertained that the thicket was not one of very wide dimensions—apparently not much more than an acre—I resolved to set it on fire on the windward side, and sent men round for that purpose.

Presently a thin, blue smoke arose over the jungle, accompanied by the crackling of many exploding grass stems, then I heard a tremendous commotion and a warning shout. Following its almost invariable custom, the rhinoceros dashed down wind, and thus broke cover not much out of a straight line between me and his retreat. He seemed, indeed, to be coming almost straight in my direction as I stood in the friendly shelter of a good, thick tree trunk, but luckily sheered off somewhat as, in a few rapid bounds, he drew near. At a distance of about 20 yards I gave him a ·577 solid bullet high up on the shoulder as he bounded

past. This brought him down squealing lustily, as they appear always to do. However, he speedily recovered himself, and made off at a great rate. Having only a single-barrelled rifle of somewhat antiquated type, I was unable to get a second shot in until he was well under way, when I fired again for the root of his tail, but apparently without result. Loading the rifle again, I dashed after him, and soon came upon a thick blood-spoor which showed that the wound was a mortal one, its frothy appearance indicating that the animal's lungs had been pierced. After a short interval of sprinting and fast walking I came up with him going very groggily through open forest. I reached him just as he began to stumble, and as he was in the act of lying down I gave him a bullet in the neck which broke the spinal column. He was in very fine condition, and his horns, 25¼ inches and 12⅝ inches, are the finest I possess.

Before leaving the subject of these interesting animals I should like to remind those who may one day go in pursuit of them that various portions of their anatomy can be made into most fascinating trophies, of which, as a rule, the hunter does not make half enough. I have in my possession, fashioned from the feet of the black rhinoceros, cigar and cigarette boxes, match stands and a jewel case; whilst the hide of another furnished me with a most uncommon and really beautiful polished table, which would rather resemble old, semi-transparent amber if it were not for the surrounding edging of natural

skin, which proclaims at once the nature of the material.

Although the square-mouthed, so-called "White" Rhinoceros is not found at any point in the region of Zambezia, some passing reference to this remarkable form may not be without interest. Mr. Selous has informed me that when he was hunting in Matabeleland about the year 1872, these immense beasts — second in size only to the elephant — were still so plentiful that, once away from the inhabited areas, he found it not unusual, without any special exertion, to come upon as many as five or six a day. On one occasion he succeeded in killing a large male with a horn of the amazing measurement of more than 50 inches, whilst I have reason to believe that even this gigantic length has been greatly exceeded in other cases.

Up to about the year 1890, the white rhinoceros was found, although no longer plentifully, in Mashonaland between the Hunyani and the Angwe Rivers. A Mr. Coryndon, I believe, succeeded in obtaining one or two there a year or two afterwards, and the last of which, so far as I am aware, we have any record was killed in the same district about the year 1894. The only surviving members of this interesting family in South Africa are at present preserved in the Zululand Game Reserve, and are said to number rather less than a score. Of late, unhappily, these animals appear to have been dogged by the very genius of evil fortune, since, I learn, one very fine bull

was recently killed in a fight, which must have been worth witnessing, with the solitary elephant the Reserve boasts; two more broke away from their sanctuary, and were speared by natives into whose gardens they had penetrated; and a fourth fell over a precipice during a severe thunderstorm, and died of the injuries he received.

After many years of uncertainty—almost of despair—lest the great white rhinoceros should be upon the point of becoming extinct, it was suddenly rediscovered, I believe in the Lado Enclave on the Nile; and it has since been ascertained that at this point, as also on portions of the Upper Congo and in the Western Soudan, it exists in such numbers as to set at rest for centuries to come all fear of its final extermination.

The extraordinary break which occurs between the two far-removed portions of the African Continent wherein the white rhinoceros occurs, extending, as it does, from the South Central Zambezi to the Upper Congo, is very difficult to account for. I have, however, sometimes thought that this animal may originally have worked its way down through the western central portion of the continent of Africa at a time when the great forests of the Congo were as yet undeveloped, and before they stretched so far to the eastward as they do at the present day. Spreading over Mashonaland, Matabeleland, and the country to the south, these animals were thus, in the course of ages, completely cut off from their northern brethren by the gradually eastward-spreading

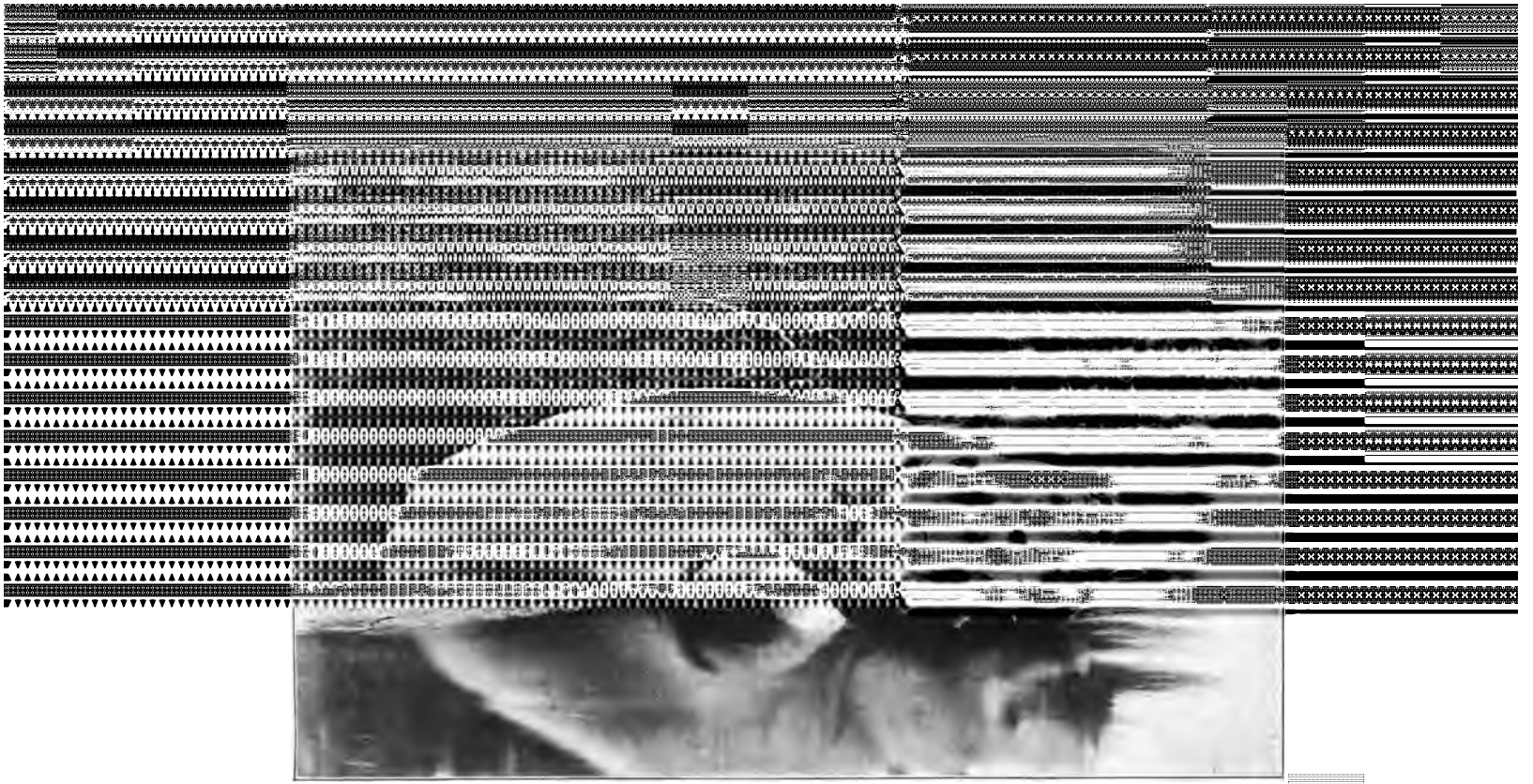
forests of the Congo basin, into which, it is well known, white rhinoceros will not penetrate. After the lapse of many centuries, therefore, had they felt any disposition to return to mingle once more with their northern relatives, they would have found it impossible to pass round the vast expanse of dense forest, their path being barred by the upper waters of the Zambezi, at that time indisputably a much deeper and more important stream than it is at present. Complete isolation, then, for many centuries overtook these southern migrants, and whilst they grew dangerously near to extinction in the south, their kindred beyond the Congo forest lands tasted the sweets, had they but known it, of a peace and comparative freedom from danger to which those in the south have for many years been strangers.

Throughout practically all the rivers and streams of Zambezia, that immense aquatic form, the Hippopotamus, occurs still in considerable numbers. When I first ascended the Zambezi, nearly twenty years ago, that river, and its tributary the Shiré, were the abiding-places of many large herds of these animals. I have seen them sleeping on the sandbanks at the head of the Chinde mouth in the warm sunshine of midday, whilst in the Shiré they were so numerous, for some years thereafter, as to be a source of danger to the many native canoes which daily plied upon the river. Of late, however, in consequence of the increasing number of steamers and barges now running, and to the misplaced perseverance with which they have been fired upon,

and doubtless wounded from time to time, by a class of so-called "sportsmen" travelling backward and forward, they have largely withdrawn from the lower waters of the Zambezi, doubtless seeking, in the less-frequented outlets of the delta and the extensive swamps which lie near its mouth to the south of the great river, that security which its main channels will perhaps never again afford them. But, putting aside the Zambezi and its tributaries, practically every stream of that wide region affords a home and a refuge for this great amphibian, and he can be found in them all by the seeker after specimens.

Although not occurring in any portion of the globe except in the continent of Africa, the range of the hippopotamus within that enormous division of the earth's surface is extraordinarily wide. From the Nile to the waters of Zululand, and from one side of the continent to the other, it still exists in great numbers wherever sufficient of its favourite element is found to afford it a permanent home.

The male measures about 14 ft. from the snout to the tip of his tail, and is an immense and heavy animal, coming in point of weight probably next to the elephant, exceeding that of the black, and probably even that of the white, rhinoceros. He has, moreover, the distinction of possessing the largest mouth of any African mammal. A full-grown male would, I feel sure, be found to weigh nearly, if not quite, 4 tons, judging from the difficulty experienced by me some few years ago at Quelimane in getting one hoisted by the steam-



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HIPPOPOTAMUS.

winch of a large Norwegian steamer on to the vessel's deck.

They are essentially amphibious, and indifferent as to whether the water they inhabit be fresh or brackish or salt. I have seen them at the entrance to the Chinde River, at a point which is practically on the seacoast, and I am informed that they may still be observed at the mouths of some of the smaller streams which discharge into the Indian Ocean between that point and Quelimane, as also in those to the northward. It has been said by some writers that the specific gravity of these animals is such that they are thereby enabled to run along the bed of a river with great speed. With this statement, however, I do not agree. I have watched them from a position high over the clear waters of the Shiré River above the Murchison Falls on several occasions, and I am satisfied that their usual method of progression under water is by swimming. This they can undoubtedly do at a great rate; moreover, as I have observed in the Macuze and Licungu Rivers, as also in the Lugella, they can successfully breast extraordinarily swift currents which would probably not be attempted by any other beast except an otter.

The hippopotamus is a nocturnal animal. During the night he leaves the water, and, following the network of tunnel-like "hippo-tracks," as they have come universally to be called, which he pierces along the banks of the streams wherein he spends his days, he makes his way leisurely to the feeding grounds. A vegetarian by habit and

conviction, within the wide limits of the diet of his special predilection he displays a considerable catholicity of taste. In surroundings far removed from human habitation, his inordinate appetite gluts itself upon grasses, sedges, and the young shoots of reeds; but woe betide the sugar plantation, the native maize garden or millet field, whither his errant steps may lead him—it would have been better that it had been stricken simultaneously by several converging tempests. In the night, during the dry weather, his wanderings do not usually lead him far from the river or lake in which his days are passed; but in the rainy season, when much of the low-lying country is at times submerged, he will wander far away from his natural haunts, to the no small alarm of individuals he may meet on the path, and to the serious detriment of areas under cultivation. In this way sometimes these animals may be found in waters far from their usual place of resort; but this is usually only because of their dislike to travelling by day on terra firma. They would thus infinitely prefer to seek a day's lodging or immersion in unknown or unaccustomed pools, and there await the shadow of the following nightfall, to returning overland late in the morning in circumstances which might conceivably give occasion for explanations of an embarrassing character. Be this as it may, the hippopotamus is a night bird, and all the sins and depredations which have been laid to his charge have almost invariably been perpetrated under cover of the darkness.

By day, if disturbed, they instantly plunge, and either swim away under water or remain concealed until the impending danger has passed them by. For this purpose they are endowed with the power of remaining below the surface for periods variously estimated, but believed to reach a maximum of ten or twelve minutes. They then rise to the surface, and sometimes silently, sometimes with a curious sobbing bellow, audible for great distances, they release the pent-up contents of their enormous lungs almost without disturbing the surface, take in a fresh supply, and sink once more from view.

The hippopotamus breeds all the year round, producing one calf at a birth, the period of gestation being between eight and nine months. After the birth of the calf, the cows, as in the cases of other animals, become extremely savage, and doubtless many of the stories told of attacks upon and overturnings of canoes and other craft may have their origin in some unintended intrusion upon the resting-place of a watching mother. I have heard it stated that whilst very young and helpless the baby hippos at times fall victims to the attacks of crocodiles, and it has been even said that several females, as the time for the interesting event approaches, will be at pains to rid the pool or other expanse of water near which their offspring are born from the presence of these reptiles. In any case, for a long time after birth, the maternal instinct is touchingly strong, and the tiny animals pass the greater part of their time standing on the backs and shoulders of their

respective dams, who are ever on the watch for the approach of danger.

The males are very pugnacious, and the combats which take place between them when they are found in large numbers are of nightly occurrence. I have often listened to the tremendous roars by which their struggles are accompanied, as I have also seen on the skins of old bulls the marks of the terrible injuries they inflict upon each other. These animals are invariably very fat, and their meat, not unlike coarse beef, is by no means to be despised. They are gifted with good sight and hearing, and their scent is quite remarkably acute.

Some years ago in the Quelimane River, returning in my boat from a morning among the wild-duck of Chuabo Dembi, I was somewhat annoyed at the aggressive conduct of a hippopotamus which frightened the lives out of my native boatmen by a series of demonstrations which I must own were very far from reassuring. At length, getting somewhat alarmed for the safety of my smart gig,—which, moreover, was Government property,—I waited for a suitable opportunity, and at a distance of about 15 or 20 yards I planted a ·303 nickel-covered bullet low down between the beast's eye and ear. She disappeared instantly from view, but the water was shallow, and I felt convinced that my shot had proved instantly fatal. We were therefore preparing to "feel" for her with an oar when the tiny head of a calf appeared above water, and my materially-minded boatmen exhorted me to shoot

again. It was, of course, a pity none of us had noticed the little creature before, as, had we done so, the mother's life might have been spared—if, that is, she had dropped her unpleasantly aggressive tactics; but there it was, and so we made up our minds at all hazards to catch it. First of all, the mother's body had to be dragged as high up on a neighbouring sandbank as eight lusty arms could move it—and that, needless to say, was not very far; but the manœuvre was so far successful that the calf, which was about the size of a full-grown pig, at once drew near to its unconscious parent. My head boatman then essayed the capture, followed half-heartedly by the remainder of the crew. He succeeded in getting hold of one of the little beast's hind legs; there was a momentary struggle, and both the combatants gallantly took the water—the calf to make its escape, and the boatman impelled by the momentum it administered to him. Some time elapsed before the little creature again came forth, and, in the meantime, the receding tide had exposed considerably more of the parent's carcass; so another attempt was made by several of us together, and again, after an irresistible scattering, he sought safety in the water. During the interval which now ensued we had leisure to concert somewhat different tactics, and when the favourable moment again presented itself, the boatmen *en masse* precipitated themselves upon their quarry and bore it down by sheer weight of numbers, whilst I roped it up with the mainsail sheet.

For three months young Jumbo, as he came to be called, was the chief feature of Quelimane, and my house became each evening the recognised lounging-place for all the lazy and curious Portuguese in the district. He speedily became touchingly tame, and took his three wash-hand basins of warm, sweetened, preserved milk per day with a relish which aroused hope of approaching independence of the feeder. The drollery of his somewhat elephantine antics was perfectly irresistible, whilst his grave imitations in the duck-pond, in rear of the consular premises, of the habits and manners of the mature beasts, was a spectacle it was difficult to behold unmoved. I intended to present him to the Zoological Society, but fate decided otherwise, for in the end, to my great regret, he faded away and died.

One of the most remarkable features of the hippopotamus is his mouth and its contents. The principal teeth consist of four enormous incisors above and below. The lower canine teeth—so to term them—are curved into the shape almost of a perfect semicircle, and placed together will usually, in the case of a large bull, span the waist of a full-grown man. The upper teeth are by no means so impressive, either the grinders or the incisors; but between the lower "canine" teeth two enormous straight tusks appear, sometimes fully 18 inches or more in length, which I suppose are employed in digging out roots in the same way as that in which the elephant uses his tusks. These, and the two immense curved teeth to which I have referred, are doubt-

less the means whereby the roots of subaqueous plants are collected; but viewed when the creature opens the vast, yawning, pink chasm in which they are set, they present an appearance at once interesting and impressive. The enamel upon these teeth is extremely hard, and the ivory of which they consist of so fine a grain that many years ago it commanded a high price, and was much esteemed by dentists for the manufacture of artificial teeth.

The hippopotamus, as I think I have mentioned elsewhere, is greatly, and far from unjustly, dreaded by the natives for the stupid habit he has formed of at times upsetting their boats and canoes. Journeying by these means, as I have often had occasion to do in the rivers of Zambezia, sometimes it has been with the utmost difficulty that the paddlers could be induced to pass these animals, and then they would only do so as close to the bank as possible. Although I have never sustained any inconvenience in this way, I have seen canoes upset, and I am acquainted with persons who have suffered considerable losses from this cause. I can imagine no position more desperate than to find oneself suddenly and without warning in the heart of Africa, stripped of all one's belongings—firearms, medicines, and provisions—by the overturning of a canoe in the deep and rapid streams one is obliged occasionally to cross in that country; and one's appreciation of the crushing misfortune is by no means increased by the reflection that it may have resulted from the perpetration of a practical joke. This sup-

position, though it may be regarded as rather far-fetched, is heightened by the fact that, having overturned you, the huge, humorous amphibian makes no effort to do you any further harm. He simply raises his head out of the water a few yards away, and watches you struggle up the muddy river-bank, with a grave yet playful expression which seems to say, " I hope you don't mind, but it *was* a lark."

Baker

Sir Samuel Baker in one of his books recounts an instance of extraodinary ferocity on the part of one of these beasts which I should be inclined to regard as rare even for the Nile, in which it occurred. After charging the paddle-wheel steamer which was engaged in towing his dahabeah, and breaking off a number of floats, it dropped astern and rammed the vessel with its projecting tusks, a dangerous leak being only stopped with great difficulty. I have never heard of any similar instance on the Zambezi, where, so far as I am aware, steamers of all kinds have been from the beginning entirely free from attack.

Judging by my personal experience of the hippopotamus—and I have seen many hundreds of these animals during the last twenty years—I cannot share the opinions of other writers who describe them as being fierce and dangerous animals in the water or out. Its so-called attacks upon boats and canoes are, in my opinion, in the majority of cases, the outcome of either curiosity or stupidity, leavened perhaps with more than a suspicion of practical joking. Still, no doubt instances have occurred where the beast meant

mischief, and where his conduct showed every symptom of anger and ferocity; but my view of such cases, or many of them, is that they have been perpetrated by some unfortunate beast which in the past, as the result of gunshot wounds or other provocation, has conceived a strong distaste for humanity as a whole, memories of his wrongs prompting him to wreak vengeance upon his tormentors in the same way that an elephant will under similar stimulus. I fancy that the responsibility for a great many of these acts of aggression which are laid to the charge of the hippopotamus should of right be laid upon the persons who have futilely wounded them in the past, and caused them pain and torture for which it is hardly unnatural that they should seek a day of reckoning.

Natives of South, Central, and East Africa as a whole hunt the hippopotamus for his hide, his fat, and his meat. The hide of a well-grown bull is often nearly 2 inches thick, and makes all sorts of useful and attractive articles, from riding-whips to card-trays. It is at the same time used all over Africa as an instrument of torture—the "Sjambok" of the Boer, the "Chikote" of the Portuguese, and the "Khurbash" of North Africa being one and the same thing, with slight variations. In other words, it is an appalling and merciless whip about 5 feet long, tapering from the thickness of one's thumb to that of an ordinary pencil, and, as I have sometimes seen it far from the ken of the Indigenes Protection Society, terminating in a piece of thin steel wire.

In skilful hands, this terrible weapon, applied to the native's naked back, cuts like a knife, and I have seen sickening sights as the result of its application. This hide is also used for making shields somewhat similar to those carried by certain of the Somali tribes, and fashioned from the skin of the black rhinoceros. From the coatings of the stomach as much as nearly 2 cwt. of excellent fat may be extracted, whilst portions of the meat—for example, the brisket boiled in salt and water—is far from unpalatable.

Shields

The chief methods of capture pursued by natives are pitfalls and harpooning. The latter method, which used to be a very favourite one on the Zambezi, where I have witnessed it, consists in planting in the animal's body a large barbed spear secured by a length of strong rope to a heavy log of wood which acts in the water as a float. The hippopotamus, with one or more of these attached to him, is then vigorously hunted by several scores of savages armed with spears, and after a longer or shorter period is finally exhausted and speared to death. I remember some years ago travelling up the Shiré River in an open boat and stumbling on to one of these not infrequent hunts. The first intimation I had of what was in progress was a pressing request from the interested persons to tie my boat up to the river-bank until it was over. I then perceived a number of natives, armed as I have described, rushing along the river-bank, following the dancing vagaries of a large log of wood which hurtled about through the water as though it was endowed with life.

To and fro, backward and forward, the wretched hippopotamus was urged without a moment's rest or respite, until at length, quitting the water, and still dragging the massive log behind him, he bounded over the sands and shallows, his pursuers running in nimbly one by one and inflicting thrust after thrust with their long, lance-like spears. Goaded almost to madness, and already in evident distress, the poor beast made for the high banks, hoping, no doubt, to gain sanctuary ashore; but between the sand-banks of the river and the reed-crowned river-banks above, a belt of soft mud occurred, into which his short legs sank. No sooner did he reach this than a score of natives flung themselves upon him. He made one furious effort to extricate himself, but, dragged back by the ponderous float, and weakened by loss of blood, he sank down at length and was speedily dispatched.

For my own part; the hunting of the hippopotamus, unless one attack him from a boat, lacks the least trace of sport. From the bank of a river the hunter's position is one of perfect safety, and he can fire away his last cartridge in the fullest certainty that he has nothing to fear. All that is required is elementary care and a powerful rifle, and enough of these immense animals may be shot to glut the appetite for slaughter of even the most bloodthirsty.

# CHAPTER V

## BUFFALO : ZEBRA : ELAND : SABLE : ROAN

PASSING from consideration of the pachyderms, we now come to the next largest of the great game beasts which may still be found in considerable, I believe in increasing, numbers in various parts of the district of Zambezia.

The large, powerful, and dangerous animal which has come to be called the "Cape Buffalo" inhabited at one time in immense herds practically the whole of South-East Africa. But since about 1896, as the result of an appalling visitation of rinderpest, which swept down the African continent from north to south, this magnificent type, although still far from extinct, exists but as an almost negligible fraction of the vast numbers which formerly roamed over the country. About 1894, Cheringoma, the country to the north of the lower course of the Zambezi, as also both sides of the Shiré River,—in fact, practically the whole of the plains of Zambezia,—were thickly populated by large herds of buffaloes, which, up to that time, had existed practically undisturbed from, and long before, the earliest days whence European knowledge of the land can be dated. That long-dead Portuguese priest, Frade João dos Santos, in a supremely interesting topographical work

published in Lisbon in 1609, and doubtless written many years before, tells of the buffaloes which at that period overran the country of which the once busy and important seaport of Sofala was then the outlet. He states in chapter xxii. of *Ethiopia Oriental* that these animals were exceedingly fierce and numerous, and that the greater part of the native hunters sooner or later died upon their horns. He quaintly describes them as being very jealous of the cows and calves, so much so that at sight of a human being they would follow him and charge more furiously than the most savage bull of the arena.[1] Thenceforward, as without doubt they had done for centuries, the vast herds went on increasing, their only enemy the lion; for man, with his rude weapons and wholesome respect, must have occupied in this majestic animal's estimation but a negligible, disregarded place. Some dim idea of the mortality which ensued on the appearance of the rinderpest can therefore be formed. I have been told by Portuguese long resident in the forests of Shupanga, in the district of Sena, and on the plains of Luabo, that for many months after the appearance of the disease the whole face of the country stank. I myself have seen, deep in the forest fastnesses of these districts, wide expanses of snow-white bones where the great herds, overtaken by the fatal malady, lay down and perished by scores.

[1] Ha muitos bufaros mui bravos em cujos cornos morrem ordinariamente os caçadores d'esta terra, porque são mui ciosos das femeas e filhos, e em vendo qualquer pessoa logo a vão buscar e accommeter com mais furia que um bravo touro.

Then if ever must the great carnivora have realised to the full their day of plenty, and the antelopes, with the sad exceptions of the eland and kudu, enjoyed a period of restful immunity from pursuit which they have never experienced either before or since.

Only odd isolated corners here and there escaped, in some cases unaccountably, the effects of the scourge; and now, little by little, especially where due and proper protection is afforded them, the buffaloes are increasing slowly but steadily. This increase, still more real than apparent, is found south of the Zambezi at various points, but notably in Luabo, and in a minor degree in certain parts of Cheringoma and the Shupanga Forest; but, travelling through the Quelimane district last year from the borders of Nyasaland to the Indian Ocean, I saw abundant evidence that in Mlanje, Lugella, and portions of the Mlokwe districts, the buffaloes were getting once more fairly numerous. Not that here they suffered from rinderpest, as it is believed that the Quelimane district as a whole largely, if not wholly, escaped the pest, but probably through the inactivity of former destructive agencies such as the firearmed native hunter,—now happily largely employed elsewhere,—to say nothing of the European sportsman who used to find in Quelimane a district where regulations were but seldom obtruded.

In Luabo I have seen of recent years herds that must have numbered from one hundred to over three hundred head, and these, as they sweep

in course of time back westward to Shupanga and Inyaminga, will no doubt enable these districts to present to the hunter's eye something dimly recalling the appearance which they must have presented in the far-off days of the early nineties.

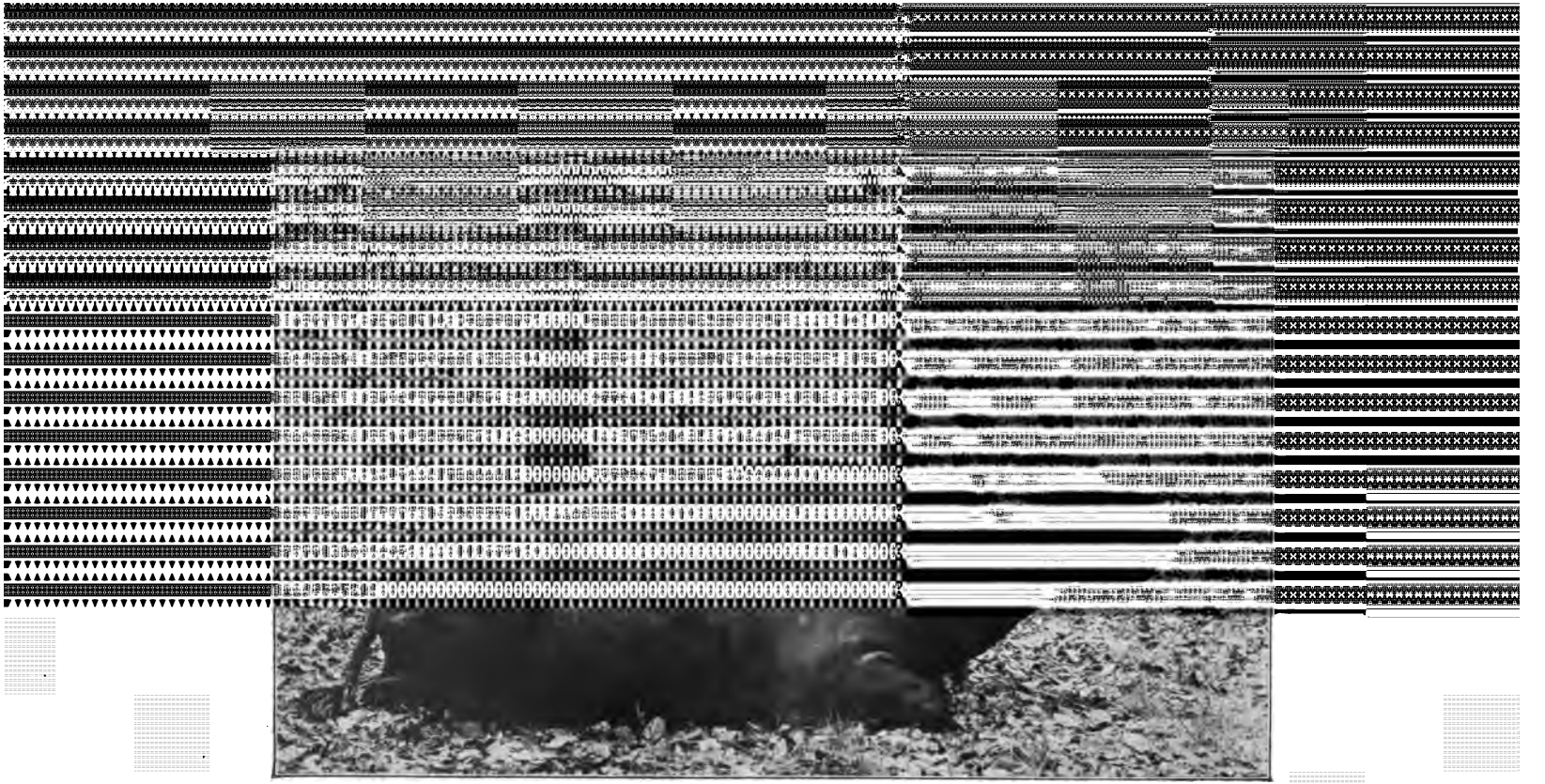
At a distance of a few hundred yards, seen in the open plain, a herd of buffaloes looks very like an assemblage of enormous dusky cattle—an illusion greatly assisted by the fact that they have all the habits of their domestic brethren. I do not know what a full-grown male may weigh, but it seems to me that half a ton may form a moderate estimate. Of dark, slaty grey, the skin of buffaloes, except in the cases of the younger animals, usually possesses scarcely any hairy coat at all. The older he grows the less hair he exhibits, until, in the case of a really aged animal, practically no hirsute covering is discernible. The head is very large, and armed with magnificent, majestic, wide-based horns which curve outward and downward from the centre of the forehead, and then form a powerful upward hook. Those carried by females are much smaller than male horns; they do not meet in the centre of the forehead, nor have they the massive, rugged wide base which lends him such an air of power and dignity. A bluff squareness of jowl, which one finds but rarely reproduced in illustrations of this interesting form, also indicates a stubborn resolution difficult to associate with any other family, if, perhaps, we except the larger carnivora.

The cows calve in the autumn from March to May, producing only one calf at a birth. These

small animals are at times not difficult to capture on the stampeding of a herd, and several attempts have been made within my knowledge to rear them; but I never heard of one proving successful. The calves die, sometimes after having become strikingly and quite touchingly tame, of some curious malady, but not infrequently from pneumonia.

Buffaloes drink twice in the twenty-four hours, and are seldom found far from water; but whilst slaking their thirst at night in a clear, cool river or running stream, their morning draught may be from the marsh or bog, or from any source which involves no trouble to reach. They are night feeders, and, if undisturbed, lie up during the day in moderately thick, bushy country; or if it be very hot, they will spend some time rolling in wet mud, or standing, or at times lying, in marsh water shaded by thickets of high spear grass—surroundings in which, needless to say, it is most difficult to approach them.

Buffaloes are exceedingly wary, and seem at times possessed of a degree of intelligence second only to that of the elephant, whose neighbour in a game country they will usually be found. It is a common experience, for example, having spoored a herd of these animals for hours from dawn onward, to find that before selecting the spot for their daily rest they have described a half-circle in such a way as to lie up down wind from their tracks, with the natural result that the hunter, following on their spoor, has no chance whatsoever of coming up, being given hopelessly



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BUFFALO.

away by the wind long before the herd is neared. They practically always stampede down wind, and therefore, when once they have been lost sight of, the only method to follow is to make a wide circle and follow back up wind in the hope of finding them. Much depends, however, on the conformation of the district, and upon how far one is able to see across it.

I consider it probable that no animal in all the long list of African great game is endowed with more terrible ferocity than the buffalo, when once his resentment has been aroused. It is a well-known fact that when wounded these animals will frequently retreat into high grass or other similar cover, and, turning aside off their tracks, will await the appearance of the hunter, whom they will then take at a disadvantage as he approaches, his eyes fixed upon the ground. Having tossed or knocked down their adversary, they will turn upon the prostrate form, and, with diabolical transports of uncontrollable rage, stamp and gore and tear it until the poor unrecognisable remains are almost rent limb from limb.

A wounded buffalo, it may be taken as certain, will charge in more than seventy per cent. of cases. In thick cover—forest or high grass—it will practically always charge if wounded at close quarters, and on level plain, unencumbered by grass or forest, they will charge at various distances, sometimes with provocation and sometimes without. Nearness may always be regarded as an incentive for them to turn upon their pursuer, who must regulate his conduct by the

exercise of cool judgment and resolution, or he will assuredly be killed. I have found in my own experience that, in open country, the charging buffalo must be quietly awaited, and as he approaches, his nose thrust forward and his chest exposed, a bullet from a heavy cordite rifle will frequently stop him. A raking shot through the centre of the chest has twice saved me from positions of some uncertainty, and I can strongly recommend it to sportsmen finding themselves in similar perilous case.

On one occasion I was hunting on the great plains south of the Inyamissengo or Kongoni mouth of the Zambezi, and in the district of East Luabo, when I encountered a large herd of these animals. These plains are the sources of several rivers and streams, among others of the Mungari, Mupa, and Gadzi. They are, as a whole, bare of all but the shortest and most stunted of grasses, and the eye can follow the circle of the horizon nearly all the way round, save for curious island-like patches of trees, isolated forest-patches which form the cool, daily resting-places of the many wild animals which here abound. I had followed upon the tracks of the herd for several hours, and at length came within sight of them. They had halted upon an expanse of high, dusty ground well out in the open, and, whilst some stood about in groups, their tufted tails flicking ceaselessly at the clouds of flies which are their constant companions, others lay quietly resting, doubtless lazily chewing the cud after their manner, and, as I reconnoitred them through a pair of

powerful glasses, looking for all the world like a large herd of overgrown, dusky cattle. The wind blew lightly but consistently in our direction, and at a distance of 700 or 800 yards the buffaloes had taken absolutely no notice of us. Luckily, considering its uncompromising features, the plain was intersected by a number of dry, shallow channels, evidently the means of escape for the heavy, torrential downfalls of the summer rains, and along one of these, closely followed by my two hunters, I proceeded to crawl slowly. It was a long, weary task, rendered the more difficult and disagreeable by the dust which flew up and persistently filled our eyes and mouths and nostrils. From time to time, as the distance grew shorter, the sound of the clicking of horns striking together, or the domineering bellow of some salacious bull, was borne towards us, until at length, weary, grimy, and out of breath, we peeped over the upper edge of our cover, to see, with a sigh of excited relief, that not much more than 140 yards separated us from the unconscious animals. By subsequent cautious manœuvring, I succeeded in reducing this to about 120 yards, and then, fairly dead beat, and with our hearts thumping against our ribs as though to burst through, we all lay flat down for a few seconds to recover our wind and steadiness. It was an eerie position, and we were not unmindful that when the herd should finally stampede, as stampede sooner or later they must, it was an even chance that, not having made us out, they might do so right over the top of us. After a minute

or two spent thus, I raised my head and made out rather a fine bull with massive horns standing broadside on at the left-hand edge of the herd. Reaching for my ·500 express, therefore, I took a steady aim for the point of his shoulder, and gently pressed the trigger. At the shot he stumbled forward with a bellow, and was immediately lost to sight as the great mass of astonished animals rose to their feet; but at that moment an exclamation from the hunters drew my attention to three cows, which had, I fancy, been lying concealed in some slight depression, and were quite close—certainly not more than 80 yards on our right front. Two of these halted after they had trotted for some distance towards us in an uncertain manner; but the third, uttering a succession of hoarse, menacing grunts, charged straight down upon us, her nose vengefully extended. I had just time, with only one cartridge in my undischarged barrel, to swing the rifle on to her. At about 80 yards I fired for the centre of the massive chest, where, had it even reached her, my bullet might easily not have stopped her in time. Fortunately for me, however, at that moment she either stumbled in the loose dust of the plain, or for some other reason momentarily lowered her extended head. My bullet struck her full in the face, and she must have died instantly; but so great was the momentum of her charge that she was carried almost up to us before she finally lay still. At the second shot, the herd, which up to that moment had been stricken motionless with amazement, began to move heavily off, leaving

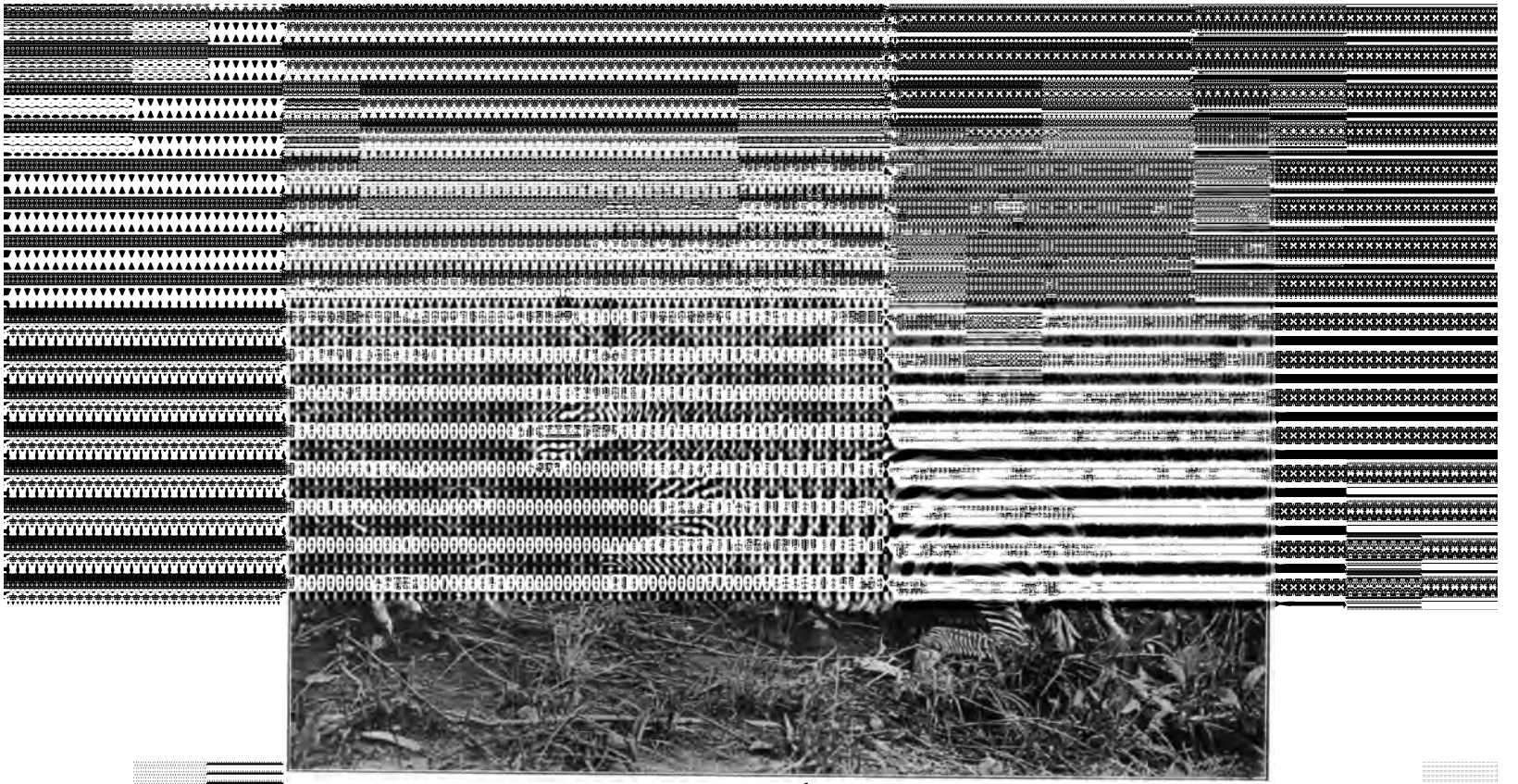
as it did so the bull at which I had first fired. He was quite dead when I examined him, my bullet having fortunately found the heart.

The charge which I sustained from the misguided cow has always been a profound mystery to me. She was a young animal, in good condition, unaccompanied by any calf, and, so far as I could ascertain, quite unwounded by any previous hunter. This incident, therefore, affords additional evidence of the uncertainty of conduct which these beasts at a given moment will adopt, and is, I think, a complete answer to the contentions of some writers who have stated that buffaloes never charge in open country unless wounded or at close quarters.

Of the three distinct species of Zebras which, so far as our present knowledge extends, are found in the various portions of the African continent, the only member of this beautiful family of the horses found in East and South Central Africa is that so widely known as Burchell's Zebra. Of course, in stating that there are only three varieties of this animal, I am influenced by a desire, so far as possible, to avoid confusion and technicality. We know quite well that, of Burchell's variety alone, scientists, whose prevailing peculiarity it seems to be to endeavour, in so far as they can, to render confusion many times worse confounded, have identified no less than four subdivisions, and these have been accepted and established; but as this book is intended for the information of the unscientific reader, who cares but little for "shadow-stripes"

and other peculiarities, we will thankfully accept the dictum of that well-known and competent observer, Major Stevenson-Hamilton, who says of these subdivisions that "there is really no deeply marked lines separating any of them." The other two distinct members of the family, Grévy's Zebra, found in Somaliland and Abyssinia, and the small Mountain Zebra, peculiar to South Africa, are really types which, for the moment at any rate, do not concern us.

In all the plains of Zambezia zebras are found, sometimes alone and at others consorting with water-buck, wildebeeste, and other antelopes, their herds numbering from six or eight at times to forty or fifty. They are extremely sociable, and very easily tamed; and although efforts hitherto made to utilise them in the same way as ponies have failed, owing chiefly to their want of staying power and forehand, it is still hoped, by means of judicious crossing, in time to evolve an animal which will not be characterised by their unfortunate weaknesses. For driving, the zebra has already in his pure state shown himself to be not unadaptable. A team of these animals was formerly driven in England by a well-meaning if eccentric individual, whilst both in South and British and German East Africa they have been captured and tamed in considerable numbers, and occasionally utilised for the same purpose. I was informed by the late Count Götzen, at one time Governor of German East Africa, that regular drives were organised there for the capture of these animals, and but little difficulty is experienced



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ZEBRA.

in taming and breaking them. But, as Major Stevenson-Hamilton very truly observes, it will be impossible in less than several generations of careful experimenting to evolve a type of hybrid which will prove of practical utility. What should operate as a powerful incentive to perseverance, however, are the two important considerations that the zebra is impervious to the bite of the tsetse fly and also to horse-sickness, to both of which the horse and his relatives usually succumb; and although a hybrid form might possibly not retain the zebra's immunity from these two terrible scourges, the probability of his freedom from power to contract them would, it is thought, undoubtedly be largely enhanced by conducting the experiments in portions of the country where the influence of these diseases continues to be felt. At Naivasha, in the East Africa Protectorate, a zebra farm of some importance has been established for many years. I have not heard, however, that experiments have been made with a view to obtaining such results as I have referred to above, whilst the liability of the animals to attack and decimation by a curious species of intestinal worm has been found a source of great embarrassment to the Department of the Government concerned.

In Zambezia, horses are few; but in spite of that fact no attempt has as yet been made either to capture or to utilise the zebra in any way. Many, I regret to say, are shot both by natives for the meat, of which they are extremely fond, and by Europeans for the skins, which they do not

need. These are carefully rolled up at the time for conveyance to their homes, where, long afterwards, they are usually found in some outbuilding riddled by insects and worms, and entirely useless for any purpose.

Lions also destroy large numbers of zebras, to which they are extremely partial. I have on many occasions passed the remains of one of these animals, which, in spite of the sign of other carnivora, were obviously a lion's kill; in fact, it may be taken as a good general rule, as it may also in the case of buffaloes, that the presence of large numbers of zebras almost certainly indicates that of lions also.

With all their beauty of form and colour, however, and in spite of their great tractability, it cannot be said that the presence of these wild equines in the vicinity of extensive cultivation is in any sense an unmixed blessing. They have playful, if embarrassing, habits of stampeding mules and donkeys; whilst the presence of fences appears literally to invite them. At times, even when tamed and broken, they seem to be afflicted with uncontrollable transports of bad temper, when they are apt viciously to attack each other with hoof and teeth, and not seldom their attendants. Still I have little doubt that when by observation and experiment the question of discovering a satisfactory hybrid shall have been solved, we shall have gone far also in the direction of solving the question of difficult transport in many parts of the country.

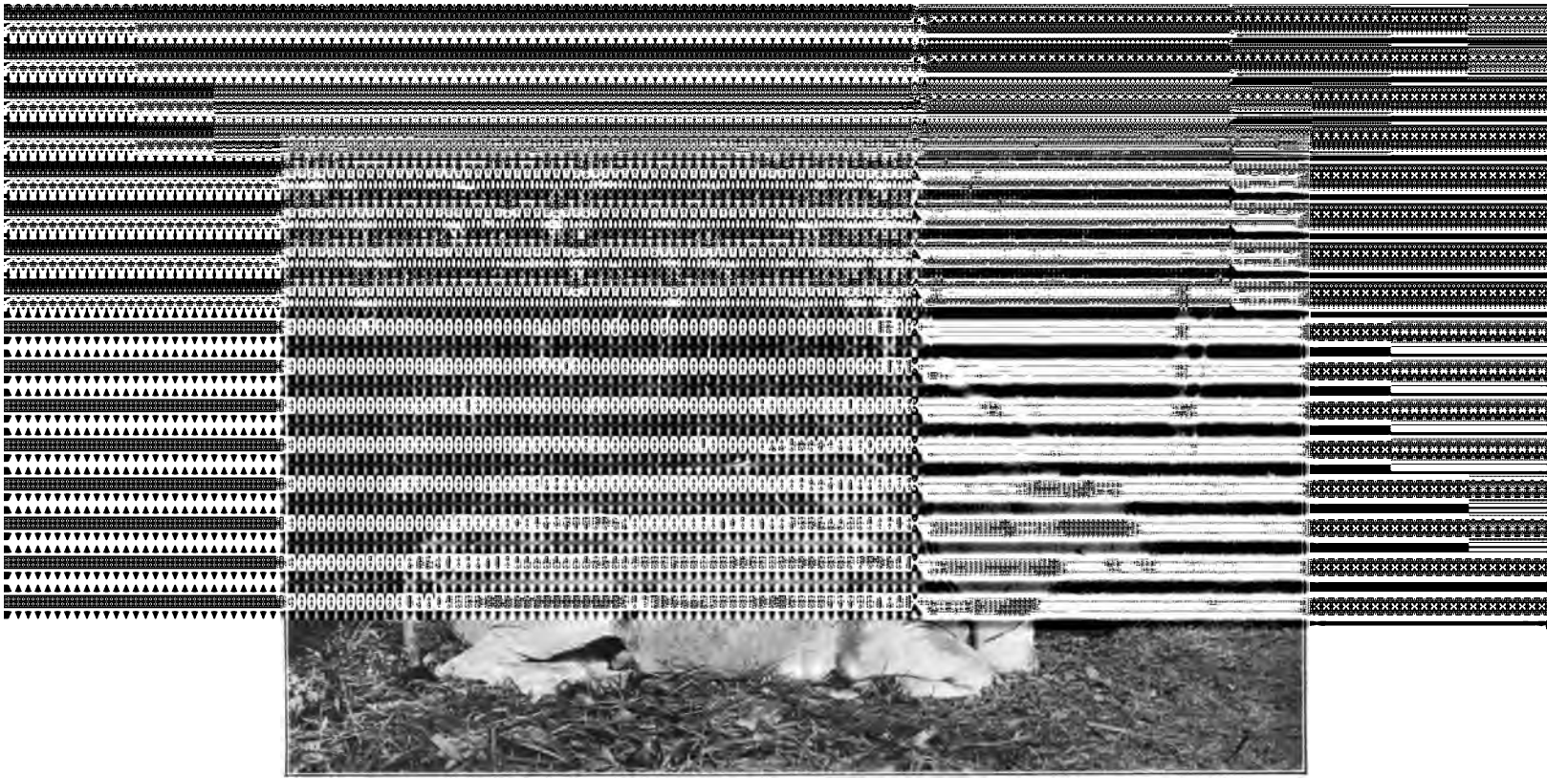
It was largely in connection with the peculiar

coloration and markings of zebras that a considerable and not uninteresting controversy took place a short time ago, to which, it may be remembered, Mr. Roosevelt very ably replied. On the one side it was contended that the coloration of all animals—and birds too, for the matter of that—was specially designed by a process of natural selection with a view to rendering them invisible, in the surroundings most affected by them, to their particular natural enemies, and one of the beasts to which somewhat emphatic reference was made in proof of these contentions was the zebra.

Now I am perfectly ready to admit that against a background of thin forest or high grass, at a distance of several hundreds of yards, especially if the sun be shining upon them from the front, a herd of zebras, so long as it remains motionless, is unquestionably very hard to see. So extraordinarily do their striping and general colour scheme blend with such surroundings as I have described that the eye—of man, be it understood—is extremely liable to overlook them, and the same may indisputably be said of other varieties. But where this theory, which is such a touching testimonial to the care and forethought of benevolent Nature, would seem to me to be weak and faulty lies in the fact that when in the course of the ages the coloration of the fauna became definitely fixed, the game families as a whole knew but one enemy—namely, the great carnivora. These, hunting as they do by night and by scent, could not, as it seems to me, have

been regarded as the dreaded source of danger. One therefore asks oneself in vain what the reason for a protective colour scheme for use *by day only* could possibly have been. Except by man, the game of Africa is, practically speaking, left almost undisturbed during the daylight hours; and it must be quite clear that it is only during very recent times that protection from him need have entered into consideration. I remember having an interesting conversation a few months ago with Mr. Selous upon this point, and found that, in the main, the opinion of this distinguished observer very largely coincided with my own.

The Eland, the largest, and to my mind the most valuable, of all the African antelopes, is common in many parts of Zambezia. In flat, wooded country—that charming park-like half-forest, half-plain of which so much of this interesting region consists—they are found in large herds. You may perhaps imagine surroundings in which thinly tree-covered areas alternate for many miles with open grass, these openings surrounded by tropical-looking date and hyphœne palms, and overhung at the edges by the fronds of brilliant, glossy ficus, by acacias, and other forest growths; where in their season the papilionaceous trees are covered with a perfect blaze of bright colour, and the silvery sheen of acres upon acres of feathery bamboos fill in the gaps in a picture of rare beauty. Here in the early mornings herds of any number up to sixty or seventy elands may at times be found feeding. They eat both by day and by night, but chiefly



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ELAND.

during the latter, and are voracious feeders, devouring grass together with the leaves of certain shrubs and other plants. I have seen their fresh spoor in the gardens of native villages, in which they cause great havoc, and more than once have sighted them surprisingly close to human habitation. They do not, if unmolested, journey very far during the day, the hotter hours of which they spend in some sheltered locality, moving off at nightfall or in the late afternoon.

Elands found in Zambezia differ in several particulars from those members of this handsome family found in other parts of the African continent. They stand well over 5 feet at the withers, although they vary considerably at different seasons of the year, and the prevailing colour of the Zambezian variety is yellowish fawn going to the palest shade of creamy white under the belly. A dorsal ridge of very dark —almost black—bristles extends from the back of the neck over the withers, a curious black band presents itself inside the knee, whilst the body is divided by about half a dozen thin vertical white stripes, in some animals curiously faint, in others very decided. They also possess a prominent dewlap. The bulls are distinguished in some parts of the country by a curious frontal brush of very coarse bristly hairs, a peculiarity by no means invariable, however. This singular growth becomes extraordinarily developed in certain portions of Southern Rhodesia, as also, I understand, in British and German East Africa. Some heads I have seen exhibited a

curious white chevron on the face, whilst in others this peculiarity was entirely absent. The horns carried by the elands I am describing have a usual maximum measurement of 28 to 32 inches, those of the cows (for both sexes carry horns) being at times as long or longer, but much slenderer and less massive. The calves are born singly in March and April, the period of gestation being between eight and nine months.

Although they drink once a day, or perhaps oftener where water is readily procurable, they are, nevertheless, curiously independent of it, and may be found occasionally at a considerable distance from it. It thus happens that in case of need they can place for a while between themselves and their pursuers long distances of practically desert country. If disturbed they never stampede wildly, as in the cases of most other animals; they simply trot away quietly, and if seriously alarmed keep up the same pace for a long distance without stopping. During the early spring and throughout the rainy season elands split up into small groups and become very sleek and fat, but in the winter the herds reassemble, and at this time of year the older bulls assume quite a dark bluish grey colour, and with advancing years become almost hairless.

There are still in the remoter districts—apart from Zambezia—large numbers of elands. They are on the whole wary beasts, and at times extremely difficult to approach, partly by reason of their accompanying bird—I believe the same

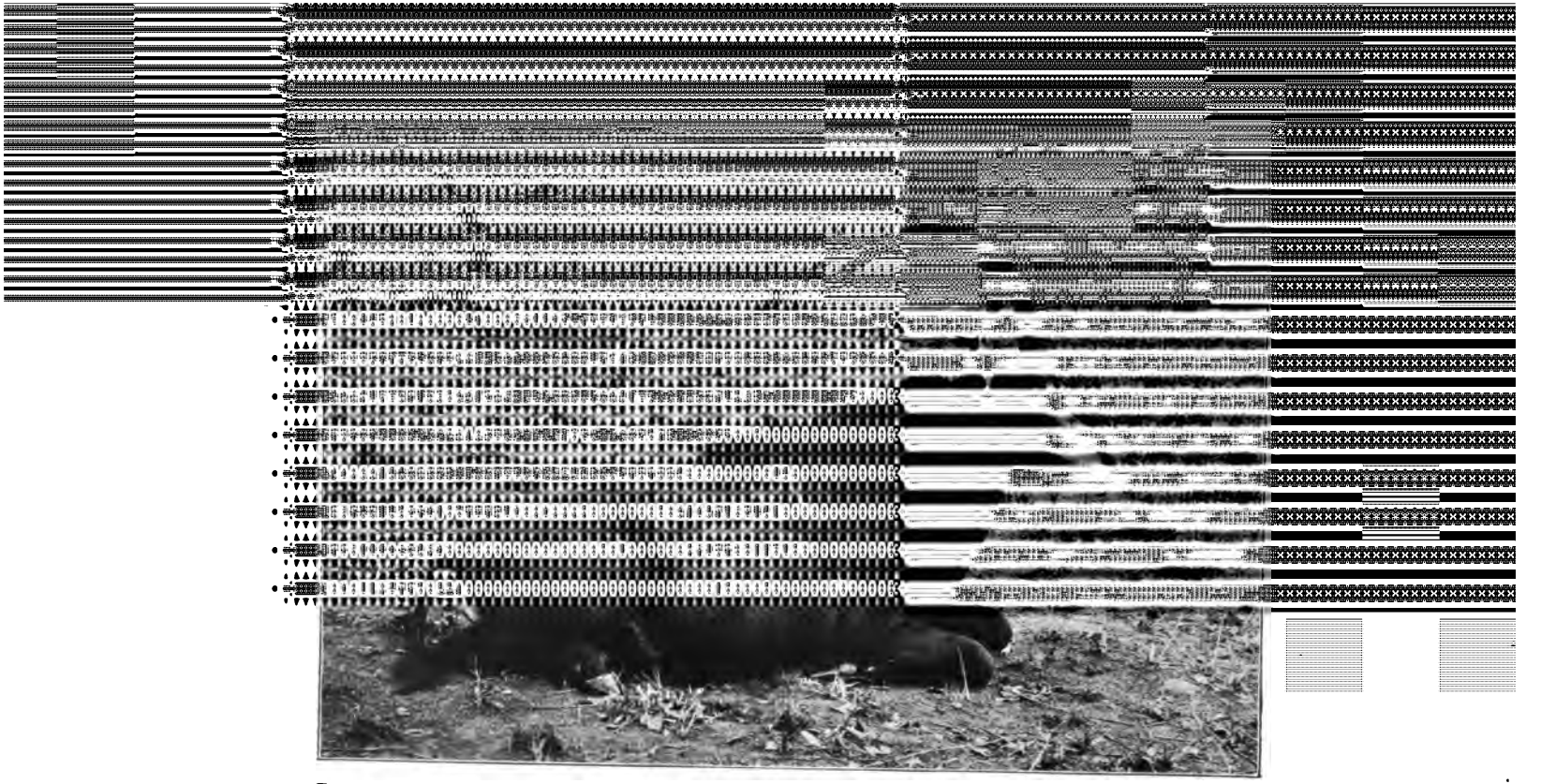
as that which so frequently gives the alarm to the rhinoceros — and partly, I am persuaded, through their habit of posting, like the hartebeestes, a sentry to apprise them of approaching danger.

I have always expressed the opinion that the eland should never be hunted. On the contrary, this splendid form should be sedulously protected, domesticated, and utilised. No antelope with which I am acquainted yields such delicate meat or such large quantities of fat and milk, and perhaps no other is so easy to tame, or would give back so rich a return for kindness and good usage. A friend of mine in the Transvaal has given me some most interesting facts relative to several tame elands to which he is greatly attached and which form an interesting feature of his premises. He describes them as being most extraordinarily intelligent, and cites instances of their learning to unlatch with their horns the gate of the vegetable gardens, and make descents, both unauthorised and devastating, upon the cabbages and lettuces. He mentioned an amusing instance of the masterly way in which, by the assumption of a threatening attitude, they terrify the women and children passing through the compound into dropping their maize and millet baskets, and of the appearance of conscious rectitude with which they appropriate and devour the spoils. All these traits of character, therefore, seem to indicate the advantages which would result from the preservation and domestication of these glorious,

harmless, and amiable beasts, and from their deliverance all over Africa from the disproportionate perils and dangers of their present daily existence.

There are few of us doubtless who have shot through East and South Central Africa during the last twenty years who cannot look back upon a certain number of elands which from time to time have fallen as prizes to our rifles. So far as I am concerned, I can recollect, during the period mentioned, having been responsible for the deaths of five or six of these animals, and their horns are still in my possession or in that of friends upon whom I have bestowed them; but I must confess that whilst the contemplation of other trophies taken from species possibly as harmless awakens in me no sense of self-reproach, the noble eland heads, which lend dignity to their surroundings, not seldom awaken, as I pass them by, an uneasy feeling almost of regret that I should have lessened, even by so infinitesimal a number, so splendid and useful a detail of Africa's majestic fauna.

In the open forest, and at times on the lower stony foothills of the more elevated regions, the Sable Antelope may be found in small groups of five or six, and in herds of thirty or more. Occasionally in the summer season single animals are met with, but, taken as a general rule, sable are extremely gregarious. In Luabo, along the southern fringe of the Shupanga Forest, eastward of the Mlanje Mountains, and in Lugella, considerable numbers



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SABLE ANTELOPE.

are still to be met with; and although nowadays nowhere numerous in the once fine hunting regions of the Beira districts, they existed formerly in large numbers in Cheringoma and Gorongoza.

In point of beauty I do not consider it possible to compare the sable antelope with his usually acknowledged and, in the opinion of most observers, successful rival the kudu. They belong to two wholly different types, whose grace and charm arise from the possession of totally dissimilar features. It would be as logical to compare the appearance of a lady robed in a masterly jet-black creation by Paquin with another present on the same occasion and garbed in a soft mouse-grey confection by Worth. Both are perfectly turned out, both present a charming and satisfying *tout ensemble*, and yet each differs in all respects essentially from the other.

The sable is an animal of vivid contrasts. Take, for example, an elderly bull, who, having passed the grand climacteric, is nevertheless still in possession of that proud and majestic appearance which has stamped the members of his race with such an air of resolution and power. His massive, deeply annulated horns sweep backward almost in the form of a semicircle for, it may be, anything between 40 and 50 inches, and are thick and massive at the base. His coat, almost coal-black upon the back and withers, which are topped by a stiff fringe or mane, is almost pure white under the belly

and on the insides of his sturdy legs. His head continues the general colour scheme of the body, is very shapely, black, or almost black, down the frontal bone to the nose, with a whitish splash extending from over each eye to the mouth corners and meeting under the chin and jaws. He stands very high at the withers, sloping sharply downward towards the croup. The neck is very deep and powerful, and carries a pronounced if short mane. Both sexes possess horns, which in the females are shorter and more slender than those borne by the bulls. The coloration of the cows is, moreover, nothing like so decided as that of the males, the prevailing hue being a deep, rich brown. They grow darker with age, however, and, but for the thinness of the horns, might occasionally be mistaken for animals of the other sex.

Sable antelope are extremely fierce, and when wounded or bayed require the utmost caution to avoid a serious mishap. I came very near to losing my life at the hands, or rather the horns, of the first of these animals to fall to my rifle. I was hunting in Central Africa one morning, when, running after a large wart-hog which I had wounded, turning round an immense red ant-heap, covered with undergrowth and crowned with the delicate green fronds of a cluster of small palms, I came right upon a very fine sable bull at a distance of not more than some 15 yards. I do not know which of us was the more surprised. In any case, he lost no time in showing me his heels; but, going away in a straight line,

he enabled me to plant a bullet about the root of his tail, which brought him down badly disabled. It must be remembered that I was a very new hand at big-game shooting, which must be my excuse for so unpardonable an imprudence; but approaching the fallen beast quite closely and incautiously, he struggled suddenly up on his forelegs, and snorting viciously, swept round his powerful horns with a lightning sweep which came so near my ribs that the points penetrated the loose folds of my khaki shooting-jacket, and, in addition to tearing half of it away, threw me some distance from him—I have no doubt due more than anything else to my startled and hasty recoil. In any case, it was a lesson I never forgot.

The bulls are desperate fighters, and I have seen several which bore upon their glossy coats ineradicable traces of their pugilistic dispositions. No doubt their principal encounters take place during the period of the rutting season. It used to be said that the sable was the only antelope that the lion hesitated to attack; but this is certainly not the case in Zambezia, where I have seen several lions' kills consisting of the carcasses of these animals. Still, even the so-called king of beasts must at times find the powerful, well-armed sable an uncommonly awkward morsel, and there are cases on record wherein the great feline has come off, to say the least of it, second best. An old friend of mine in Nyasaland possessed a lion skin taken from a beast which he found lying dead near

surroundings betokening a terrible struggle. The ground for many yards round was covered with blood and trampled with sable spoor, and the lion, pierced completely through the lungs by a terrible thrust from the sable's horns, exhibited in his hide the great holes which his active adversary's massive weapons had made as they tore their way to his vitals. The sable could not have sustained much damage, as my friend and his hunters took up the spoor, which they followed for some miles until it was finally lost; but although at first drops of blood were seen upon the track, there appeared to be no sign of weakness in the victorious sable's gait.

These antelopes are almost if not entirely grass-eaters, and at early morning, and again at sunset, they leave the forest to browse in the wide glades and woodland grass clearings, where they remain until after nightfall. One of the most fascinating spectacles tropical Africa has to offer is that of a large herd of sable antelope as they gather themselves together on the first alarm of approaching danger. I remember years ago in Nyasaland, where I am glad to say these animals are reported to be still numerous, I made out one day a large herd scattered and feeding in thin *masuku* forest shortly after sunrise. After a very careful and difficult stalk; I reached, by great good fortune, a point about 100 yards from the nearest members, and there, sheltered by the crumbling moss-grown trunk of some fallen forest monster, I stopped

awhile to observe them. At length, espying a good bull, the only one so far as I could see with them, I fired and shot him, feeling somewhat regretful as I did so at dissipating so pretty a picture. At the sound of my rifle the scattered assemblage, after one moment of stupefied alarm, drew together some forty strong, and, entirely ignorant of the direction in which danger lay; they swept in a bounding gallop directly towards me. Unwilling as I was to fire again, I stood up on the tree-trunk and shouted, waving my hat in full view when they were not more than 40 yards from me, and watched them wheel off to my right and disappear, a bewilderingly beautiful and graceful spectacle of the African woodlands.

Sable antelope are not difficult to approach. If feeding, and the wind be favourable, they are stalked more easily than many other game beasts of my acquaintance. The only difficulty which presents itself is the embarrassing habit a herd of these animals has of spreading itself out over a large area. They divide themselves into twos and threes, and great care must be exercised to make sure that in drawing near to one group the suspicions of others, perhaps invisible to the crawling sportsman, should not be aroused. When it is remembered that there is often only one good bull with each herd, and that he usually feeds and remains somewhat apart from it, the difficulty of securing good heads will be readily appreciated. But where these animals are numerous, single males are at times met with,

and these are, in such circumstances, much more easily brought to bag than when guarded more or less by the presence of a number of shy cows and calves.

The Roan Antelope, a near relative of the sable, but lacking both his splendid horns and vivid colour contrasts, is nevertheless a variety of Zambezian game of more than ordinary interest. Nowhere very numerous, his haunts may be said almost to coincide with those of the sable—to "march" with them, as they would say in North Britain; but the two are rarely if ever found in the same district. Roan antelope occur in small companies of seven or eight at a time. I have seen and shot several in the country to the west of Quelimane which is drained by the Lualua River, as also on the lower slopes of Méupa Mountain, where, as in the low country surrounding the source of the Lugella stream, they are far from uncommon. I have been told that they are to be found in the Pinda and Morumbala districts, but have never seen them, although familiar enough with this part of the country. In a book which he published some few years ago, Mr. F. Vaughan Kirby speaks of having met with this animal in the Gorongoza district, south of the Zambezi, and in the chartered Mozambique Company's territory. This I can only regard as a case of mistaken identity, for I feel convinced that this antelope is nowhere to be found in the country lying to the west of the port of Beira. If further reasons were wanting, Gorongoza is far too mountainous a district

for a beast such as this, which is a notorious lover of flat, or at most undulating, country.

The roan antelope is, so to speak, the plain child of the family of which his handsome kinsman the sable is the attractive member. I regret that I am unable to publish a photograph of this animal, the more so as illustrations of him are few and far between. In Johnston's book, *British Central Africa*, there is a drawing of the roan which looks as though it might have been intended for a fanciful caricature; but apart from this particular "picture," the only good illustration I have seen is that which appears in Stigand and Lyell's admirable work, *Central African Game and its Spoor*. This latter certainly affords an excellent idea of the roan antelope, and one from which it is possible to draw interesting comparisons.

The roan is larger and heavier than the sable, and stands about 14 or 14½ hands at the shoulder. The general structure closely resembles that of the smaller beast, but is somewhat clumsier, and instead of the vivid black and white or brown and white of his good-looking relative, there is a distinct tendency to greyness and consequent dinginess in his general appearance. His most striking feature is the disproportionately large ears; so much are they so as almost to mask the small, disappointing, backward-curved horns, which look like a cheap, futile imitation of those of some immature sable. There is always, to my mind, about the roan an air of shifty apology, a plainly evinced desire for as complete self-effacement as

possible. He seems surrounded by an impalpable something which, if it were reducible into words, would plainly say: "I am fully and painfully conscious of my shortcomings. Let it go at that. Don't rub it in."

As in the cases of the eland and sable, both sexes carry horns; but whilst consistently mean and inconspicuous, those of the older males are usually very broken and damaged, partly by their furious family combats, and partly as the result of their habit of breaking up the ant-hills of the blind termite to get at the salty earth within. The herd bulls are thus preferable as specimens to the solitary old males which may sometimes be seen.

The surroundings in which roan are to be found are, as I have said, fairly flat. Their habits of feeding and drinking are almost precisely the same as those of the sable—that is to say, they may be found in the wide grass-clearings soon after dawn and at evening, and here they continue to feed far into the night. On being disturbed, they utter a short, impatient snort, and canter leisurely off, to stop, however, within a short distance and listen intently. Once alarmed, they become very suspicious, and it is usually extremely difficult to draw up to them a second time. A case of this kind occurred to me on the Luahua River some years ago. It was a fine game country, singularly well watered, and, as is so much of the Quelimane district, a landscape of peculiar beauty and interest. In the early morning my hunter and I cautiously approached an open forest clearing

such as I have described elsewhere, to find no less than eleven roan, of which two were bulls, quietly grazing on the sweet green young grass shoots of late October. Through some imprudence, however, they perceived us, and broke away before I could get near enough to fire, so we took up their spoor and followed them. At first they cantered down a series of sandy glades, bounded on both sides by clumps of yellow, seared bamboos and tiresome undergrowth. Through this we followed, dodging behind the cover the bamboo clumps afforded. At last they slowed down to a walk, and we saw one place, under the shadow of a gigantic bombax, already bursting out into its summer clothing of sweet-smelling, deep red blossoms, where they had evidently stood for some time. Proceeding with great caution, we soon afterwards dimly made them out in a grey screen of stunted acacias, and here I left my two companions fully extended on the ground, and essayed the crawl upon my stomach which was literally the only chance the surroundings afforded. On I went, an inch at a time, slowly, painfully, the dust mingling in a friendly manner with the blinding perspiration which streamed down my face. But it was no good. Before I had covered half the distance a low whistle from behind apprised me that they were again in full flight. The chase now took us into lovely scenery bordering the Lualua itself, at this point a wide, clear, brilliant stream, roaring past great granite boulders veined with pink dolomite and quartz, and topped by the delicious tender green fronds of

raphias and wild date-palms. Here again the roan paused to consider their position, and I slipped along the brink of the stream and under cover of its high, reed-crowned banks, one eye on the wind and the other on the point from which it would, I thought, be possible to get a shot. On I went carefully from boulder to boulder, and at length reached a spot where I fancied I could reconnoitre unseen. I pushed my way to the top of the bank, to find—they had gone again. I whistled for my hunters, feeling now thoroughly aroused. Had I to follow all day and all the next, I was fully determined one of those bulls should be mine. I will not weary the reader with a detailed narrative of what I experienced thereafter; suffice it to say that six times we came up to that herd of roan, and six times they broke before I could get within range. Occasionally we sighted other game, but never wavered. I believe my hunters felt quite as savage as I did; for although they would point out such other animals as we passed, it was always with an air of detachment which clearly indicated that we were in nowise concerned with aught but the elusive roan.

At length my hour came. A small forest clearing surrounded by bamboo thickets was unadvisedly chosen by the harassed herd for a few moments' repose, and they halted on the edge of it, oblivious of the fact that a bamboo-covered ant-heap affords the most perfect imaginable cover. It was a tame conclusion to a day of unheard-of difficulties and disappointments.

Moving quietly but rapidly to my sheltering ant-heap, I put the thickly growing greenery gently aside, and found myself scarcely 100 yards from the rearmost bull, which I shot without further trouble, one single bullet from my heavy ·577 Express being all that was required to secure him.

I do not think that the conclusion of any day's sport has ever afforded me more satisfaction than I experienced on that occasion, and, as a further reward for our perseverance, we discovered on our way back to camp indications of rhinoceros which enabled us to bag a very fine bull on the following day.

In South Africa, I fear, but few roan antelope survive. In the Transvaal and on the northern borders of Natal they are said formerly to have existed in large numbers, but it would surprise me to learn that many members of this interesting if not particularly beautiful type survive outside the limits of the sanctuary the game reserves afford them.

# CHAPTER VI

## KUDU : WATER-BUCK : WILDEBEESTE : HARTEBEESTE : TSESSEBE

As shy as he is beautiful, and harmless as he is shy, this grandest and stateliest of all the antelopes is a lover of rocky, forested foothills and ravines, thick brushwood, and denser brakes than any others of his commanding size. Nowhere very numerous, the Kudus of Zambezia, especially that portion lying to the south of the great river, are still struggling to increase their never very great numbers, which were sadly depleted by the rinderpest of 1896. I fancy, on the whole, they appear to be more plentiful in the middle and north of the Quelimane district than in any other part of Portuguese East Africa, if we except that of Portuguese Nyasaland, where, I am informed, they occur in great numbers.

I do not think that any person who had not seen with his own eyes the delicate colouring, symmetry of form, and grace of proportion of a well-grown kudu bull would believe from mere description that so splendid a creature was known to zoology. Standing 14 hands at the shoulder, his prevailing colour is a soft mousy grey, with several clearly marked vertical white

stripes, as seen in the accompanying illustration. A white chevron on the frontal bone immediately below the eyes, and a considerable mane of greyish hair whitening near the tips runs along the dorsal ridge. The beautiful spiral horns which crown the shapely head have over and over again been the inexhaustible theme of many an enraptured sportsman, who has rightly regarded them, of all others, as among his most prized and cherished trophies. Added to all this, the build of the animal coincides much more closely with our preconceived ideas of what an antelope should be. Unlike most others, he does not display the same bizarre tendency to slope from the withers to the croup as do the sable, hartebeeste, and so many others. He stands upon his firmly planted feet and looks just what he is, beauty and dignity harmoniously blended.

The females, smaller and paler in body, carry no horns, and, so far as Zambezia is concerned at any rate, run in herds which rarely exceed a dozen in number. These herds, with which the males consort during the greater part of the year, feed upon the leaves and shoots of various trees and small shrubs, also upon the forest fruits in their season. They are only to a very limited extent grass-eaters, but are apt, in portions of the country where they are undisturbed, to do considerable damage to native gardens, where they display an exasperating partiality for maize and other native cereals, and especially for the contents of the tobacco patches.

On taking to flight, the kudu raises his nose, lays his great horns along the back of his neck, and dashes off at a tremendous pace, darting from side to side, and swerving under boughs and other obstacles in a surprisingly rapid manner. If he should be in the neighbourhood of the herd, the females, one of which is usually posted as a look-out, give him the alarm, and they all flee away, their short, white-fringed tails held high, uttering a deep, hoarse bark not unlike that of a bushbuck. Some antelopes, namely the sable and waterbuck, as also the hartebeeste and others, before finally diving into the depths of the bush will often halt long enough to enable a hasty shot at times to be delivered; the reedbuck, indeed, may often be checked in full flight if the hunter have the presence of mind to utter a loud, shrill whistle. Not so the kudu. From the moment he realises that the time for flight has come, I do not believe that any form of cajolery, be it by whistle or other means, would serve for an instant to check that headlong rush.

I do not think I have ever seen kudus of either sex in the plains or clear of cover. They drink daily, and are not capable, like the eland, of straying far from water. The young calves are produced, I believe, about February, as on one occasion during that month, whilst after elephants in Boror, one of my hunters caught a tiny, leggy kudu calf which could not have been more than a few days old. Poor lanky little thing, I have often hoped it was returned to

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KUDU.

the maternal care, although I still feel doubtful about it. Years have passed since the incident occurred, but full well I remember the unconcealable air of wondering disgust which flitted across the hunters' faces when I not only unconcealable, as it seemed to them, declined to hand the bleating captive over to the cook, but sternly required them, as they should answer to me did they fail to do so, to replace it in the haunts of the herd.

I have in my possession one pair of kudu horns 57 inches in length measured round the curves, and these are thick and massive at the base; and although not anywhere approaching a record, this measurement may nevertheless be regarded as that of a good pair of horns, eminently worthy of an honoured place upon the wall. Of course bulls have been shot with horns more than a foot longer round the curves than mine, but these are naturally few and far between—the result of those lucky encounters for which so many of us have hoped in vain.

The kudu has rarely been known to use his magnificent defences except in combats with foes of his own race. He is perfectly harmless, and I have on several occasions seen my hunters leap upon a wounded bull and bear him down, holding the head by the horns in a convenient position for the administration of the *coup de grâce*. I do not think any bribe would have sufficed to induce them to pursue a like course in the case of the sable, or of several other antelopes with which I am acquainted.

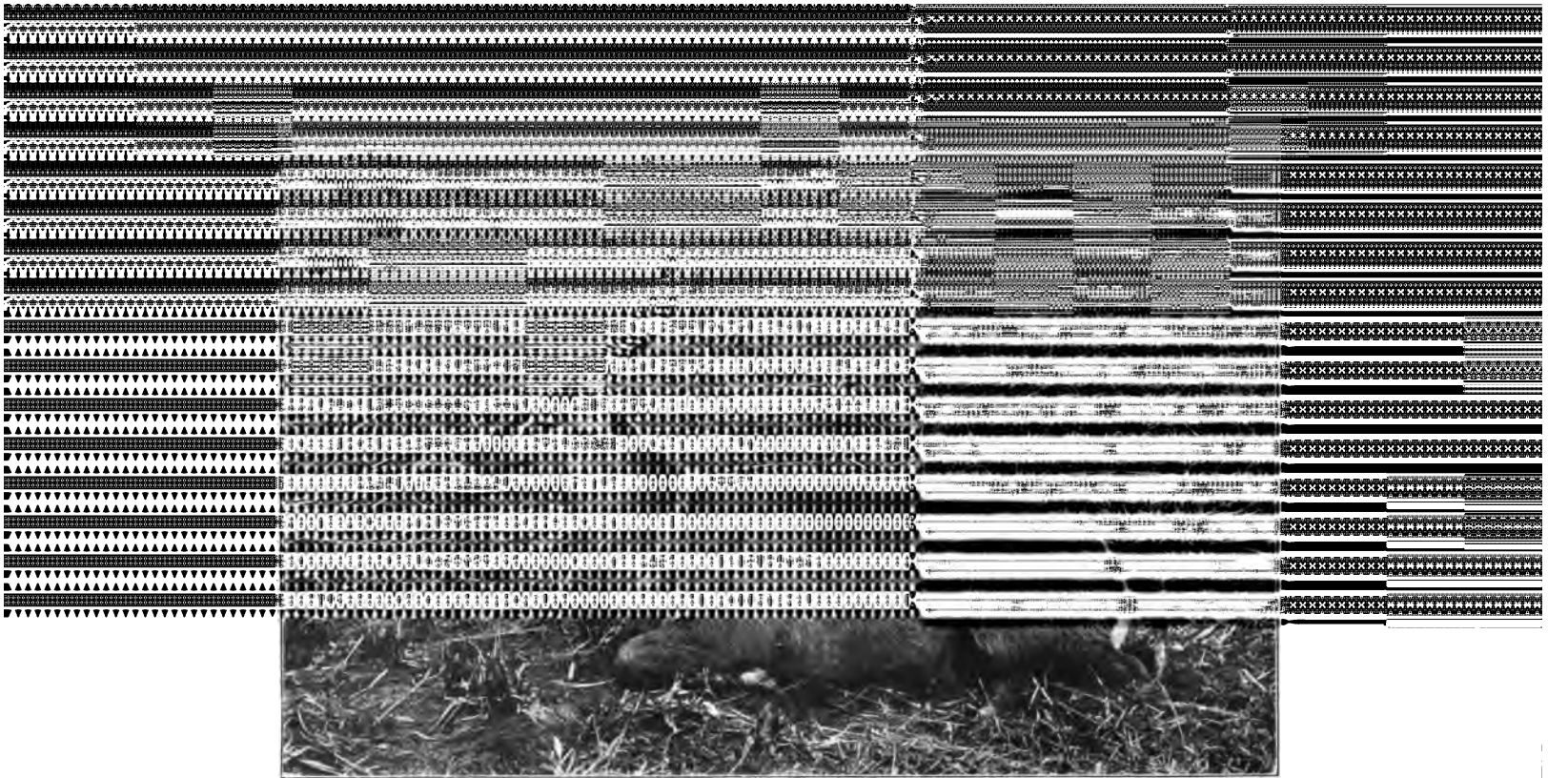
The smaller variety, known as the lesser kudu, does not occur in Zambezia, being confined in its range to Somaliland and portions of British East Africa, and, I think, Uganda.

In all the grassy plains of South-East Africa there is no sight so common as an assemblage of Water-buck, their horns dancing in the mid-day sun like weird motes in the heat radiation. They are fine, well-set-up animals, and present more of the bodily form of the stag than any African antelope known to me. Not only on the river-banks and wide plains of Zambezia is the water-buck found, but in thin forest also he passes much of his time, and not seldom seems greatly to appreciate the shade it affords, although at other times the tremendous heat of early afternoon appears to cause him not the slightest inconvenience. In East Luabo day after day I have seemed never to be out of sight of herds of water-buck. They are friendly beasts, and fraternise freely with zebras, blue wildebeeste, and Lichtenstein's hartebeeste, in whose company they often pass many hours of the day. The Urema flats in Cheringoma, as also the wide plains through which the upper waters of the Pungwe flow, used at one time to be the haunts of vast numbers of these animals, and may still, in spite of years of murderous and pitiless slaughter, harbour a few. But where they exist to a great extent unthinned by the paid native hunter is to the south of the Kongoni mouth of the Zambezi, on the vast and grassy plains of East Luabo.

As I have just stated, this handsome antelope possesses a build and carriage not unlike those of the British stag. The females carry no horns, but those of the male, which, springing from the head, extend forward and outward for from 25 to 30 inches, are deeply ringed, majestic, and form a fine trophy. In colour the water-buck is darkish grey, and his coat, coarse and very long, increases beneath the chin to 3 or 4 inches in length. The corners of the mouth, and a slight smudge in front of each eye, are white, and he carries on the rump a curious whitish ring. The females, smaller than the bull, and of a paler shade of grey, are, I think, even somewhat hairier still; and this appearance would seem to lend colour to the suspicion that this fine animal has strayed accidentally away from some northerly latitude, for which he was by nature intended, and found his way to Africa by mistake. In any case, he is a distinct ornament to the country of his choice, and, as he is perfectly inoffensive, we may well express a hope that he may long remain there.

Water-buck have been extremely well named, as there is probably no antelope, if we except the Situtunga of the Mweru swamps and the Letchwe of the middle course of the Loangwa River, possessed of a nature so passionately fond of water. But as neither of the two last-named animals is known to occur in the region we are considering, we need not, I think, concern ourselves with them. I have more than once, when in pursuit of wounded water-buck, seen them take to such

comparatively wide rivers as the Upper Shiré at Gwaza's, and swim strongly and boldly across. On one occasion, coming upon a small herd a few miles above the old Government Boma at Mpimbi, I came upon eight or ten of these animals close to the bank of the Shiré where the river made a somewhat pronounced bend. All but one wheeled to my right flank and got away; but the rearward bull, which was some yards behind the others, seeing me run to cut off his retreat, promptly turned about and from the top of the river-bank plunged boldly into the water and swam out into the stream. Near the centre the river shallowed, and here he paused, looking backward as though to see if his companions were following. I was thus enabled to bring him to bag. It is probable that, in crocodile-infested streams like the Urema and the Pungwe, numbers of these beasts must annually fall victims to the loathsome saurian. I have seen them in the evening, a little before sunset, standing slaking their thirst belly-deep in these rivers, and more than one crocodile which I have seen opened has been found to be full of the meat and pieces of skin of water-buck, doubtless caught in the act of drinking. My old elephant-hunter Lenço told me that on one occasion on the banks of the Madingue-dingue River, an affluent of the Pungwe, he came upon a full-grown water-buck bull just as it had been seized by the muzzle. A tremendous struggle took place, which lasted some minutes, when, the crocodile being a small, immature one, the bull actually succeeded in draw-



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WATER-BUCK.

ing it a little way from the water, whereupon Lenço and his companions dashed to the spot and, knowing full well the crocodile would never let go, promptly speared both the reptile and his prisoner.

As a rule they are inoffensive creatures. It is said that the bulls fight a good deal among themselves; but then, at the mating season, so do the males of practically all other animals. I have only once seen a water-buck show the smallest sign of aggressiveness, and that was a very fine bull which I had wounded severely on the banks of the Mungari River in East Luabo. Following upon his blood spoor through high *stipa* grass, I came suddenly upon him at a distance of about 10 yards. He had turned and was facing me, and, to my intense surprise, he advanced towards me, nodding his head violently and breathing heavily—I cannot quite call it snorting—through his nostrils. Poor old fellow! his race was almost run, or he would no doubt have been more active. As it was, Lenço dashed forward and hit him heavily over the head with a stout piece of timber he was carrying in for firewood. The bull fell, so near was he to succumbing, and was quickly dispatched. I have often thought that had he been a little less preoccupied by his wounds he might have proved quite troublesome.

They pay a heavy toll, not only to the hunting native—paid or unpaid—but also to the lion, as I have shown, to the crocodile, and without question to hyenas, leopards, and hunting dogs. On one

occasion in the Barué I saw a wretched female water-buck harried by about a dozen of the last named cross our path one early morning. We were on the banks of the Luenya River, and I went with a couple of men to take up the spoor. It led us to the river-bank and thence into the water, which I conclude the animals swam, as at this point we gave the search up and resumed our journey.

The flesh of water-buck, though by no means so well-flavoured as that of many other animals, is nevertheless, if properly cooked, far from uneatable. I have welcomed it on many occasions when, after days of tinned provisions or tasteless fowls, a water-buck steak, well pounded and beaten to destroy the fibres, has proved an appreciable addition to the camp table. But the whole fact of the matter is that the meat of most animals is quite edible if properly hung, beaten, and cooked.

In Angoniland the thick hide of water-buck used at one time to be employed in making the oval skin shields common alike to the Zulu and the Angoni, their descendants. At times I have purchased these shields, which are highly ornamental, to decorate my walls; but, as is the case with the skins themselves, which I have on several occasions endeavoured to cure, it is perfectly impossible to keep the long coarse grey hairs from falling out, whilst the natural odour of the beast, which seems to cling to it, renders its presence in a hall or living-room a somewhat doubtful advantage.

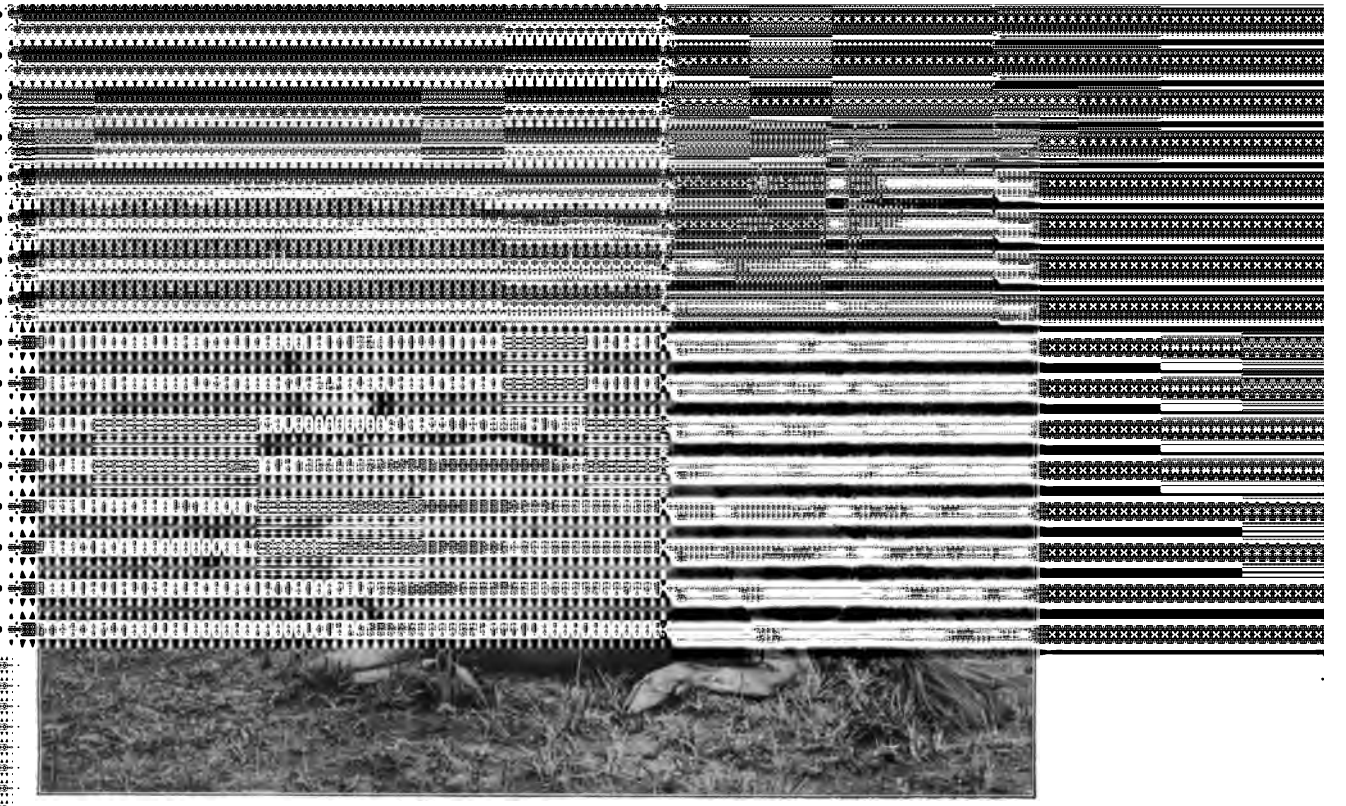
There are, of course, several varieties of this fine antelope, distributed over the various portions of East and North Africa, but this, the common and largest variety, is the only one known to the region of Zambezia.

The Brindled Gnu or Blue Wildebeeste is an animal which goes through life under a grave disadvantage. Nobody will take him seriously. He is a mere blusterer—one who, unduly conscious of his wild and shaggy appearance, endeavours to impose it upon the world at large, and impress his fellow-creatures with the supposition that in reality he is a devil of a fellow, and one who stands no trifling whatsoever. The very way in which he glares at you, as your scent assails his nostrils, and snorts, and stamps, and fumes, as though his one wish in life were that he might have just one go at you! But he never does—if unmolested, that is to say. He just dashes madly away, whisking his tail and kicking up his heels as though, had they been fingers, he would have snapped them in your face. I do not say that if wounded and cornered the blue wildebeeste would not give a very good account of himself, for I have seen him do it. But it is to his appearance and general demeanour before that misfortune overtakes him that the foregoing lines refer.

The wildebeeste would seem to have entered the ranks of the antelopes by mistake. He and his plain friend (some say his relative) the hartebeeste together do not convey the impression of being antelopes in the least, as will be seen

when I come to describe him in his turn. The blue wildebeeste is a heavy-looking, hairy-headed, brindled creature, standing perhaps a little more than 4 feet at the shoulder, but high on the withers, whence the back slopes very sharply down to the root of his tail. The horns, carried by both sexes, though not unshapely, yet lack the general appearance of antelope horns, conveying rather, at first sight, the supposition of having belonged to some singular family of undersized buffaloes.

Zambezia contains two different families of wildebeeste, the first the type I have just imperfectly described, and the second, called for inadequate reasons the "Nyasaland" Gnu, found but sparsely in that British Protectorate, but existing much more numerously in the centre of the Quelimane district and the rolling country between Chiperoni Mountain and the wide plains of Boror. The Nyasaland variety was discovered by my old friend Mr. H. C. Macdonald about the year 1896, who shot the first specimen secured not far from Zomba. The differences between the ordinary brindled and the Nyasaland gnu are chiefly that whilst the first named is, as described above, extremely hairy about the head and neck, the latter, with the exception of a somewhat lanky mane, possesses but little in the way of hirsute embellishment of an exuberant character. A further peculiarity displayed by the Nyasaland variety is a rather singular inverted white chevron upon the frontal bone an inch or two below the eyes. Whether



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"NYASALAND" GNU.

this chevron is constant or not, or tends, as in the case of the elands, to be individual rather than general, it is of course difficult authoritatively to say, but there are grounds for supposing it to be much more marked in some specimens than in others.

On wide, rolling, or flat plains bordering forest country and near to water wildebeeste may at times be seen in very large herds. In thinly forested, woodland scenery, although not often found, they may at times be met with, but in smaller numbers. Often in the early morning one may see them feeding quietly on their way back from water to the edge of the forest, and again at late afternoon they may be observed in a long string making their way down for their evening drink. They are grass-feeders, and greatly given to associating with other animals, especially water-buck, zebras, and other dwellers in the open plains. At a short distance they appear to be almost black, the contrast being doubtless heightened by the pale colour of their surroundings in the winter months of the shooting season.

On the Urema plains of Gorongoza a few years ago brindled gnus were very abundant. From the vantage-ground of partial concealment in a palm belt in which my camp was for some days pitched, I have watched their comings and goings at almost all hours of the day. On one occasion, having wounded a fine male, my hunter and I came up to him, after a long and wearisome spooring, in a wide, thick belt of

handsome phœnix palms. Here we came right upon him. The hunter, a young and courageous man, dashed past me, and attacked the animal with his spear, but made a bad shot and missed, whereupon the wildebeeste, uttering a succession of sounds, between a snort and a grunt, turned determinedly upon him. The native, in endeavouring to avoid the animal's rush, stumbled heavily, and the pursuing beast was almost upon him before I was enabled, by a hasty but successful shot, to put an end to the incident and to the wildebeeste also. On another occasion, a wounded wildebeeste I was endeavouring to photograph leaped to its feet and advanced upon me with such an air of threatening resolution that I precipitately abandoned my camera and sought safety in the possession of my rifle once more. But it is on approaching a herd of these animals that they resort to the attitude of simulated fierceness to which I referred at the commencement of my description.

You may have made them out, for instance, feeding upon open plain in the early morning, or in some lovely forest clearing where approach is merely a matter of care. You may have reached a point where further concealment is impossible or useless, and you have disclosed your presence without more ado. For some few seconds the astonished herd will regard you *en phalanx*. Then one or other or several of the front rank will snort loudly, nodding their heads in an exasperated way, as a horse does

with an uncomfortable bit, and paw the ground viciously. If you now pick out one and fire, instead of making good these futile menaces, the whole herd will instantly wheel round and stampede madly, to pull up, wheel round, and renew their stare after a few hundred yards have been covered. The wounded member, even though mortally hit, will often dash wildly round in a half-circle and follow his companions, or at least attempt to do so. I have known them, on more than one occasion, with a bullet through the heart, cover quite a considerable distance before falling.

Whilst I was camped on the Urema flats, blue wildebeeste at evening often fed up to within 100 or 150 yards of my tent, if the wind happened to be favourable, without displaying the smallest uneasiness or, I think, making us out.

The calves make their appearance, I am told, in the months of December and January. They are curious, brown, lanky little things with large plaintive eyes and a depressing and ceaseless bleat. One of these was brought into my camp on one occasion by the carriers. It was most friendly, and took milk very confidingly. I kept it alive for nearly a fortnight, when suddenly it died, after having become quite touchingly tame. These animals seem to be distinguished in their early youth by extreme and disproportionate length of limb. It is stated that their mothers hide them in remote grass patches whilst very young during the day, and doubtless many

must fall victims to leopards, hyenas, and other predatory forms. The mothers, my hunters informed me, are extremely vicious about this period and, they were unanimous in declaring, would assuredly attack any intruder, either human or otherwise.

Wildebeeste are not difficult to approach, and the shooting of these animals has never seemed to me to offer much in the way of sport. I have killed them over and over again when their meat became necessary for the maintenance of my people. Their heads form an interesting but not very striking trophy should the mask not have been preserved; but, unless this be done, the huge frontal bone is most unsightly, and the whole skull possesses little enough to redeem it from utter gruesomeness.

Lichtenstein's hartebeeste I regard as the least attractive of all the antelopes which roam the forests and plains of Zambezia. It is a wretched creature both from the point of view of appearance and from that of sport. Still, I suppose, most of the many hunters of big game who read these pages will recall him to mind with an indulgent smile. Upon him many of us have fired our first shots, and few there be assuredly whose recollections of him do not connect themselves with a liberal use of forcible language. A hard beast he truly is, his tenacity of life astonishing. Even when mortally wounded, he will often lead the weary and perspiring hunter long distances before consenting to be brought to bag. There is something unspeakably ex-

asperating in his ungainly, bounding canter, in the course of which he appears clumsily to lift all four feet from off the ground at the same time, and glances back now and then with an almost exaggerated air of awed, deprecating surprise which sits well indeed upon his long, coffin-shaped face.

The hartebeeste is a lover of trees. One usually finds him in the thinly forested woodlands which form the foothills of a mountain range, or on moderately high, undulating, slightly wooded plains. He is found at times in the lower expanses, but only on such of these as afford shelter from the sun, and at the same time are not covered with thick brushwood, which he greatly dislikes. In park-like alternations of forest and grass he is most at home, and these are the localities where in the past I seem to recollect most frequently to have seen him. He is almost entirely a grass-eater, and does not stray far from water, at which he drinks twice during the day—at early dawn and at evening. I have seen them in dull or rainy weather drinking as late as eight or nine o'clock in the morning, but this I believe to be quite an exceptional occurrence.

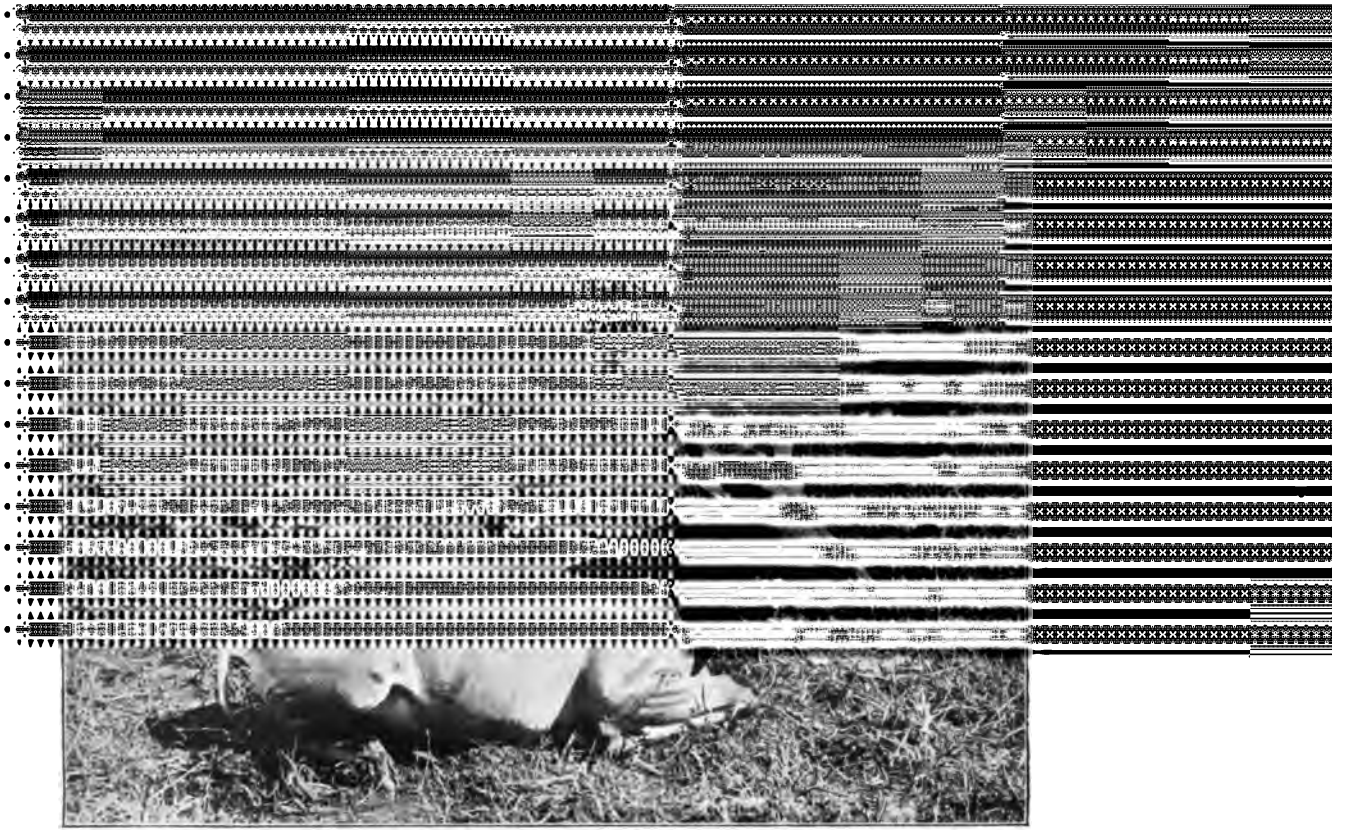
Found in small assemblages of from ten to thirty, although both sexes carry the mean-looking horns with which they have by nature been provided, the merest tyro could find no possible difficulty in distinguishing the bulls from the cows: the latter are much paler in their almost ochreous yellow than the bright reddish

brown of the males. They are, moreover, considerably smaller. The belly and the insides of the legs are a dirty cream colour, almost white in the case of the females, while the tail, knees, and mane are black. They are extraordinarily awkwardly shaped animals, the back sloping to the croup at an astonishingly abrupt angle, which may possibly have suggested their responsibility in the long-dead past for a similar peculiarity—if perhaps not quite so marked—in the family of the wildebeestes.

Hartebeestes have, however, one redeeming feature, which has gained for them the wholehearted respect of most, if not all, hunters: their meat is excellent—second only, I think, to that of the eland.

They are curious and rather stupid animals, and on being disturbed will canter clumsily off for a few hundred yards, then stop and turn round, regarding the approach of the hostile agency with an expression of pained remonstrance. These tactics they will repeat over and over again, managing, with the nicest perception, to keep just beyond effective rifle range.

On one occasion I had an opportunity to appreciate the amazing toughness of these animals. I had been camped for several days under the shadow of mighty Gorongoza Mountain, and had been enjoying some very satisfactory sport, when one evening, being on the point of returning to camp, I made out from the top of an ant-heap a very fine herd bull, looking almost dark from among the paler females by which he was ac-



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LICHTENSTEIN'S HARTEBEESTE.

companied. They were over 200 yards off at the time, and it was evident that I should have to make an effort to get nearer, as they had already begun to betray symptoms of suspicion. Leaving my hunter fairly conspicuously displayed on the summit of the ant-heap for the purpose of monopolising their attention, I descended, and began a crawl on hands and knees to gain the shelter of a large tree-trunk which had doubtless been long before uprooted in some violent forest storm. Very gradually and quietly I reached my goal without misadventure, and found myself separated by not much more than 90 yards from the preoccupied animals, whose attention was still obviously fixed upon my hunter on the top of his ant-heap. I could see the bull's horns easily enough, but a wretched cow had obtruded her mean person between us, and stood almost in the line of fire, consuming me with anxiety lest, in case they retreated, the bull should continue to be covered by her. After a few moments of uncertainty, the hunter solved the difficulty for me by slipping from his position on the ant-heap and rolling a yard or so down. I knew that this would send the hartebeeste off, and at that moment they swung round, and the bull's shoulder was uncovered. On receiving my first ·303 hollow-pointed bullet he staggered, but though obviously hard hit he galloped off after the retreating cows, my second shot having apparently completely missed him. Joined by the hunters and other natives, I lost no time in taking up the appreciable blood spoor; but we

had covered almost, if not quite, a quarter of a mile before we almost stumbled over him lying at his last gasp in a patch of high *stipa* grass.

On examination, I found that my first shot carried a little high, but would have proved fatal in the end, as it had pierced the lung. My second, however, a Jeffery split bullet, had entered near the root of the tail, and had practically passed through the entire length of the unfortunate beast's body. It will thus be seen that, with one mortal wound and a second if anything severer one, this hartebeeste had nevertheless succeeded in traversing a surprising distance before finally succumbing to them. This was an exceptionally fine beast, and measured just under 52 inches at the shoulder.

Lichtenstein hartebeestes are the only members of that family of seven or eight species found in the Portuguese Province of Mozambique. The remaining seven are scattered all over Africa, from Bechuanaland in the south to the Bahr-el-Ghazal in the north. There is, however, a strong family resemblance among the different branches, and no special knowledge is necessary to enable the sportsman readily to identify them. Here, moreover, is another instance of astonishing gregariousness. Hartebeeste are quite as frequently as not found with zebra or wildebeeste, and I have more than once seen them accompanying a herd of sable. In these circumstances they are a nuisance, which frequently prevents, or renders most difficult, a successful approach to the more im-

portant animal. They are absolutely inoffensive and harmless, and I have never heard of any case in which they have displayed the smallest symptom of aggressiveness even under the most intolerable provocation.

Poor old hartebeeste! He will always have my esteem and gratitude for the many excellent meals with which he has supplied me, however much my feelings may be tempered by unprofitable recollections of the many weary miles he has made me traverse for them.

Only in two localities in South-East Africa am I aware of the existence of that singular type, the Tsessebe. In East Luabo I have seen a few small herds on the plains bordering the banks of the Mungari River, and I remember some years ago having seen on the Pungwe River near Beira a few of these animals consorting with water-buck and a few herds of zebras. North of the Zambezi it has not as yet, to my knowledge, been traced, although I fancied, whilst on a journey from Nyasaland to Quelimane in 1911, that I saw a spoor which bore a striking resemblance to that of the tsessebe. It was the same shapely, clear-cut impression as that of the hartebeeste, but just a little large and a trifle less pointed.

I have been informed by Sir Alfred Sharpe that in certain portions of South Central Africa—for instance in the valley of the Loangwa River, and on the immense plains surrounding Lake Bangweolo—very large herds of these animals may be seen—so large, indeed, as to contain

many hundreds in each. If this be the case, I think there must be some difference between them and the South African type, which is rarely if ever seen in parties of more than a dozen, and usually in smaller groups still.

Tsessebe are always in the plains. They are grass-eaters, and seem to experience little if any inconvenience from the terrific heat of the mid-day sun, so there they remain. Rather larger than the hartebeeste we have been considering, one shot by me in Luabo several years ago reached a shoulder measurement of 57 inches. Their colouring is not unlike that of the harte-beeste, but somewhat brighter, whilst the coat, especially of the males, is distinguished by a remarkable gloss, which, unfortunately, fades away soon after death. They are exceedingly hard to kill; but as cover or concealment is never sought, the task of bringing a wounded animal to bag becomes simply a question of how seriously it has been wounded, and how far the hunter is prepared to follow it up.

Tsessebe are not sporting or agreeable animals to hunt. The awkward, hartebeeste-like body, the clumsy, loping, cantering flight, his long fiddle-head with the unfinished-looking horns—all these combine to stamp him as an animal not worth the trouble of serious pursuit—except for considerations of larder—from the moment a good specimen head has once been secured. Personally, I have been at peace with the tsessebe for many years; but my recollections of his

pursuit rather painfully connect themselves with a chase after a wounded animal which seemed to bear a charmed life, of several burning hours spent in hunting him down—and of a bog! But I got him.

# CHAPTER VII

INYALA : BUSHBUCK : REEDBUCK : IMPALA : DUIKER : LIVINGSTONE'S ANTELOPE : ORIBI : KLIPSPRINGER : STEENBUCK

Stratham p. 179 1910.

UNTIL Major Statham discovered that rare and beautiful form, the Inyala, in the Gorongoza district, between Beira and the Zambezi, some three or four years ago, I had always believed that, with the exception of a limited number which occur some distance up the Sabi River,—or at all events did so as late as 1907,—no inyala were to be found between that point and a small area near Chiromo in British Nyasaland, which, in the early years of the far-distant nineties, used to be somewhat facetiously called "Rosebery Park." I never knew why this somewhat high-sounding designation should have come to be conferred upon a portion of the west bank of the Shiré River, which, for tropical wildness and unpark-like aspect, was, at the time of which I write, probably second to no other in the country; but old Central Africans, who were my contemporaries of those days, may perhaps remember that this region, whether it came to be called Rosebery Park during his long sojourn in the country I cannot recall, was the camping place of an extremely delightful and entertaining

Frenchman whose name, Edouard Foa, is still remembered. Monsieur Foa afterwards wrote an account of his hunting and wanderings in which, if I mistake not, although reference is made to Rosebery Park, but little light is thrown, I fear, upon the obscure reasons for its having been so named. In any case, within a stone's-throw of Rosebery Park inyala were, and I believe still are, to be found. Persons desiring to secure a specimen of this antelope whilst hunting in Zambezia will thus have an opportunity of doing so in a district within easy reach; otherwise the representatives of this attractive family to be found on the Sabi are, I am informed, extremely difficult to get at, occurring as they do in a portion of the country which has been described as an oasis in the midst of a sort of desert of thirsty bush-country. The Marchese de Pizzardi, shooting there in 1907, secured a very beautiful specimen, of which he showed me the skin; but the hunt after it occupied some two months, and the experiences he described to me were certainly not of the pleasantest. I have no knowledge of the remote district in which Major Statham discovered his specimens the following year, and therefore can say little about it except that from what he told me it is a part of the country which takes a long time to reach.

Foa

Pizzardi

The singular characteristic of the inyala, which confines a certain number, never very large, to a given restricted area, no more occurring for, it may be, many hundreds of miles until

the next habitation of another assemblage is reached, is, I believe, a peculiarity which is not noticeable in any other member of the Zambezian fauna. There can be little doubt that this strange habit connects itself with food considerations, which cause the local concentration of this fine animal in areas which, without inconveniencing them in the smallest degree, could almost be confined within a ring fence. They are lovers of dense bush, into which soon after dawn they slowly retire, to issue forth, if undisturbed, once more near sunset. They drink twice a day or, if unmolested, oftener; whilst their food, so far as is known at present, consists but little of grass, a strong predilection being displayed for the leaves, fruits, and seed-vessels of a variety of forest growths, the names of which would convey but little, I fear, to the average sportsman at home.

In appearance the male inyala is a beautiful, stately beast. The horns, which are not carried by the females, are of almost exactly the same shape as those of his relative the bushbuck, but attain to greater length and thickness, and are tipped with yellowish white. I do not know what may be the present record, but I should regard 28 inches, measured along the curve, as being distinctly good. The colouring of this animal is very beautiful and unusual. The males vary considerably, a fact due doubtless to age, environment, or other considerations, but those I have seen are of a singular purplish grey, with a full, beard-like, goaty fringe under the throat which

imparts to the animal a most patriarchal appearance. From withers to croup the skin is divided by a black line which follows the dorsal ridge to the root of the tail, whilst the flanks are striped and spotted with white. The females, smaller in size than the males, are of a rich dark chestnut.

I am sorry to have to confess that I have never succeeded in securing a specimen of the inyala. I fear, therefore, my hints upon how he should be hunted can only be regarded as based upon information I have received; but it is generally conceded that success is dependent upon two vital factors—namely, to be on your ground some time before daylight, and not to take your first chance unless you are satisfied that the head is a good one.

The inyala is most jealously protected in both the British and the Portuguese Spheres of Influence in Africa, and, as a rule, the sportsman is restricted to one. It therefore becomes highly necessary to use the most careful discrimination, and to wait for another day rather than incur the risk of exhausting your opportunity for anything under a good average measurement; and as inyala are known to be astonishingly regular in their daily habits, a postponement of your shot until the following morning is a measure whose adoption need give rise to no misgiving, since I am assured by competent observers and hunters that from the same hiding-place they have, day after day, been passed by exactly the same animals at precisely the same time. I never knew,

nor had I ever the courage to inquire, what the precise features were by which they were so unerringly recognised and identified, but the statements were made with such an impressive *visage de circonstance* that I felt too subdued to insist upon obscure and wearisome details.

The Bushbuck, a near relative of the inyala, carries horns, so far as the males are concerned, of similar form but smaller dimensions—15 or 16 inches being considered a very good head—and without, as a rule, the straw-coloured tip. Bushbuck are found all over South, Central, and East Africa, and are handsome, sporting, and, on occasion, aggressive little beasts. The males are of a deep grizzled brown, with a tinge of red upon their white striped and spotted flanks, whilst the hair along the dorsal ridge and on the hindquarters is rather long. The females are much paler—usually of a light reddish yellow—and their body striping is by no means so conspicuous. Both sexes are white under the belly and on the insides of the legs. Whilst the coloration of the bushbuck is one of the most inconstant things in nature, it is, to what extent soever it may vary, always harmonious and handsome. The most southerly representatives of this interesting family are extremely dark-coated, and, if cornered, recklessly brave—so much so that, small as this animal is (the weight of a full-grown male would probably be about 90 lbs.), fatal casualties are said to have happened to incautious persons, whilst dogs employed in hunting them are frequently killed in the resulting encounters. As they extend north-

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BUSHBUCK.

ward, however, the exuberance of both colour and courage appears to wane, until, as Zambezia is reached, we find an animal to all bodily appearance similar to the Cape bushbuck but often of a dark yellowish chestnut. There is none, or but little, of that striking bluish grey which is so great an attraction in the southern form, while the striping and spotting are somewhat less distinct.

Few wild animals there are assuredly whose flesh is so extraordinarily good as is that of the African bushbuck. I remember when, some years ago, I lived at Zomba in the Nyasaland Protectorate, the wooded ravines of the plateau of that splendid mountain were the favourite haunts of large numbers of bushbuck. Meat in those days—in the shape of beef or mutton—was a luxury upon which our minds had long ceased to brood except occasionally when in gentle, reminiscent mood. Our daily fare was frugal in the extreme, and consisted of wearisome, unlovely dishes of under-flavoured fowl or over-flavoured goat. Occasionally, however, one or other of the energetic ones would ascend the mountain and pass a day and a night on its cool, healthy uplands, there being after his return, for a brief season, an attraction which enabled us to face the dinner-table almost with enthusiasm, and revel in the unwonted luxury of grilled bushbuck steaks.

These antelopes, unlike the other members of the order to which they belong, are never found in herds or considerable assemblages; as a rule you only see two together, male and female, with,

possibly, their offspring. Often only one at a time is met with. They frequent the thickest forest and bush, in which they lie up during the day. They feed on a variety of leaves, roots, and seed-vessels, and, in parts of the country where they are not much disturbed, commit serious depredations in the native gardens.

Bushbuck are extremely pugnacious, and their encounters during the rutting season are fought with such fury and resolution as to cost the lives of many of the males. My old friend the late Mr. John Buchanan, C.M.G., once told me of an occasion on which he surprised two male bushbuck fighting in his coffee plantations. So intent were they upon their own affairs that they paid not the smallest attention to his approach, although he was accompanied by one or more natives. The fight raged, he assured me, for more than ten minutes, at the end of which time one of the combatants became stunned by a heavy thrust or blow from the sharp-pointed horn of his adversary, and sank to the ground, whereupon the victor, uttering a triumphant bark, and perceiving his human audience for the first time, dashed off into the bush. The vanquished animal was secured by Mr. Buchanan's natives and, I believe, deposited in the zoological collection at Zomba, where, I understand, it unfortunately died.

In the higher and more mountainous regions of Zambezia the same bushbuck as the one I have described is common. In the early morning, especially if the day be dull and cloudy, they may

be seen feeding in the grassy clearings and on the edge of the bush until a late hour. They are, as a rule, by no means difficult to approach while still unsuspicious, and even when they realise the nature of the pursuit will often lie low, starting away on nearer approach with a frantic rush and the characteristic bark. But while feeding, especially away from one, I have sometimes, with a favourable wind, succeeded in gaining a point not more than 60 or 70 yards away. But when, as occasionally happens, there are several of these animals together, and a male happens to be of the party, the females are more wary and, I have sometimes thought, give him the alarm.

The natives of South-East Africa are greatly addicted to catching bushbuck—and other small antelope—by means of driving them with dogs into long, advantageously placed nets. I have been told that these periodical drives, in which sometimes several villages jointly take part, are responsible for the deaths of large numbers of these animals, and I hope efforts will be made by the respective African Governments to put a stop to a custom which exacts a yearly and deplorable toll from the smaller antelopes of all kinds.

Reedbuck are found in greatest plenty near to the coast-line, although, of course, they haunt, in lesser numbers, the whole of the interior of East and South Central Africa.

Take, for example, one of the many small rivers which, both to the north and south of the great Zambezi, discharge their waters into the Mozambique channel. As they near the coast

their courses run through immense open plains, and may be traced low down on the horizon for many miles by a dark winding belt of wild date-palms, acacias of several kinds, albizzias, and other water-loving growths. Behind these again you come to a more or less wide belt of high spear-grass, and, as the surface of the plain recedes from the water, to reeds and grasses of a reasonable growth. This is the place for reedbuck. Near the mouths of the Mupa and Mungari Rivers I have seen their clear-cut footprints in the sand of the seashore, whilst in the various mouths of the Zambezi—especially the Chinde mouth—they were so numerous that the fact was officially noted on the Admiralty charts of twenty years ago. At the mouth of the Mungari there is a curious and somewhat extensive peninsula of low-lying grass land. On this, towards evening, I have counted from the summit of an ant-heap more than twenty reedbuck feeding in sight at the same time, and on one occasion, not very many miles away from the point mentioned, being forced by the failure of a supply of grain to arrive in time to provide meat for my hungry carriers, I killed six of these antelopes in about three-quarters of an hour.

The reedbuck is a beautiful, graceful type of animal about the size of a fallow deer. As its name implies, and as I have just shown, it is a dweller in reeds and loves the neighbourhood of water. It is an animal which adheres strictly to the family circle, and thus, although a number may be seen at the same time extending over a

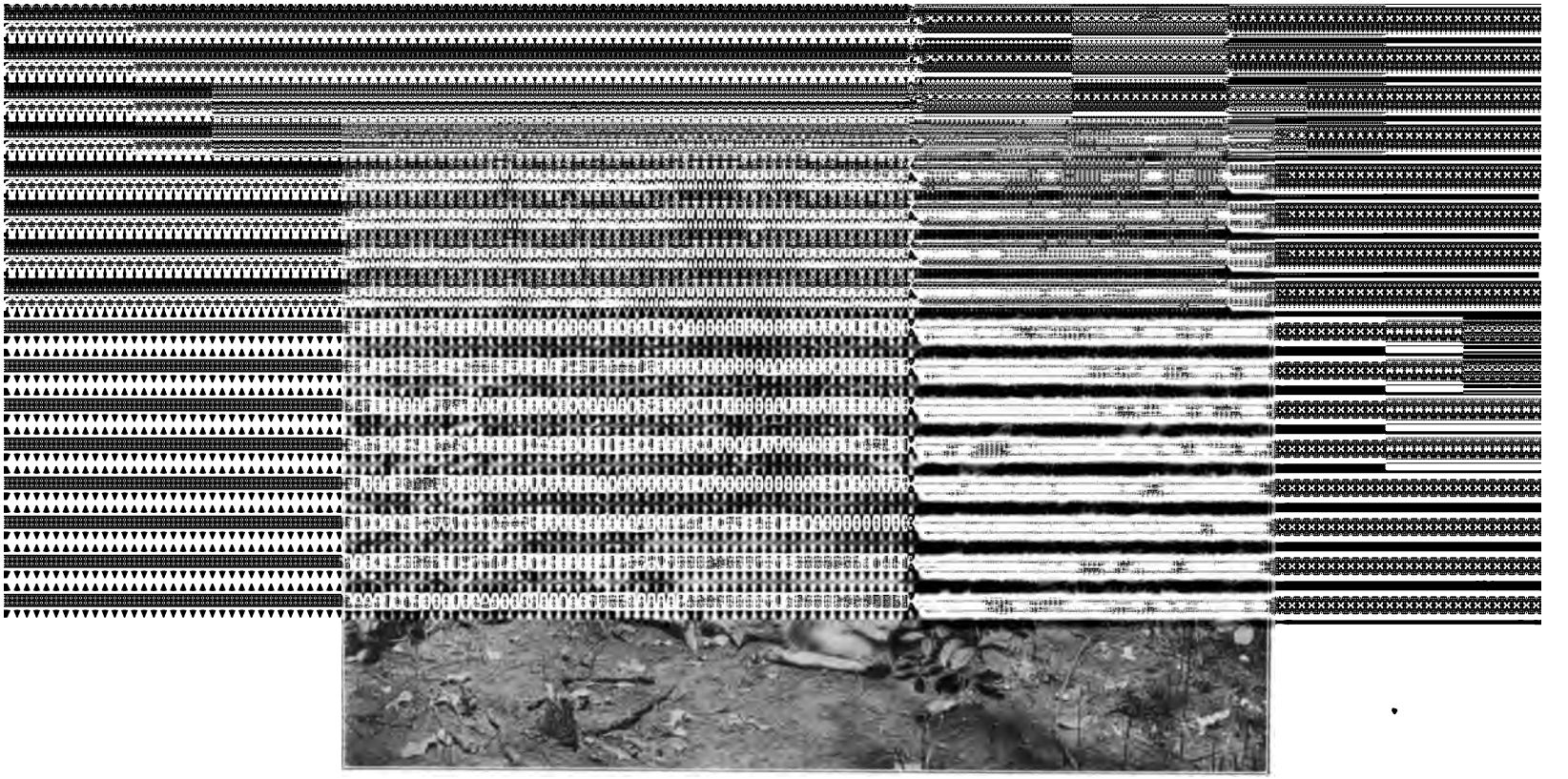
wide area, it may be taken that on the whole the little groups of two or three form the limit of their sociable instincts. They are perfectly harmless, become exceedingly tame, and grow wonderfully, and I think affectionately, appreciative of kind and gentle treatment. Many years ago, when I lived for a time at Chinde, the main navigable branch of the Zambezi delta, I kept a young male reedbuck a by no means unhappy or unwilling captive in the gardens of the Vice-Consulate. He was remarkably handsome and intelligent, and a great lover of sugar, for which he would come readily, and somewhat boisterously, when called, his eagerness on one occasion resulting in the wrecking of the afternoon tea-table, and great grief in the matter of cups and saucers. Poor Wilfred! A roving hyena came one night and robbed me of one of the most cherished of the many wild friends with which Africa has from time to time endowed me.

Of a pale reddish brown, creamy white under the belly and inside the thighs, the male carries a handsome pair of outward-spreading horns annulated for about half their length and thence smooth to the tips. In Zambezia these horns are small compared with those from other parts of Africa, 14 inches being the measurement of an exceptionally good pair. When alarmed, they usually sink down low in the grass, very much as a hare sometimes does, doubtless in the hope of the danger passing them by undiscovered; but if satisfied that the hostile agency is in pursuit

of them, they utter a wheezy but penetrating whistle, and bound rapidly away. Even when in full flight, however, in districts where they have not been much hunted, I have more than once checked them by whistling shrilly, although this does not by any means always succeed. Their food consists, I believe, entirely of grass, and their meat is a most appreciable addition to one's table.

In the early nineties, when the British Navy maintained two small stern-wheel gunboats on the Lower Zambezi, I have on several occasions accompanied the officers of these vessels on shooting excursions up the Inyamaria and Inyamakativa channels, as also through the Madridane opening to the lower or Inyamissengo branch. Here we have shot numbers of reedbuck, which on our return were greatly appreciated by those at Chinde, who, by force of circumstances, were only able to obtain a substance dimly resembling fresh meat about once a week. I do not know if conditions have greatly changed, but it seems to me more than probable that even now the numbers of the reedbuck in the Zambezi delta may not have been greatly thinned since the time I mention. Still, shooting reedbuck only is doubtless far from an exciting form of sport, although there was, in my recollection of these hunting grounds, frequent opportunity of an encounter with larger and more interesting beasts.

The Impala is essentially a forest-loving animal, and perhaps of all the smaller of the African antelopes the most beautiful and graceful.



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REEDBUCK.

Although it is fairly abundant throughout South-East Africa, and exceedingly plentiful in Zambezia, the horns carried by the males in the latter district are much smaller than those found in the northern half of the continent. This peculiarity, however, in no way detracts from the beauty of the animal, or from the grace and charm which they lend to their surroundings.

I should regard as the most favourable haunts of impala a park-like alternation of forest and glade near the banks of some such river as the Shiré, where, above the Murchison Cataracts, I have seen them in herds of fifty or more. On the banks of the Zambezi they do not seem to be very plentiful until the Lupata Gorge is reached. Lup. G.
Both above this point and below impala are not uncommon, but the gorge itself is too stony and barren for them.

The males, rising to about 36 inches at the shoulder, are of a brilliant, glossy chestnut, fading beneath their bodies to delicate fawn and pure white under the belly and legs. Their handsome horns are lyre-shaped and ringed, the somewhat widely set annulations being separated by deep notches. I suppose one would regard 20 inches round the curves as the measurement of a good head, but then, as I have pointed out, they are much smaller in Zambezia and Nyasaland than in East Africa and Uganda.

Mr. H. L. Duff in his delightful book *Nyasaland under the Foreign Office*, published some years ago, mentions a very curious and unusual peculiarity observed by him in the case of the Duff

impala found in that rising colony—namely, that during the winter months, which no doubt coincide with the period of gestation, the males separate from the herd and keep scrupulously to themselves apart. It is a somewhat singular fact, if Mr. Duff's observations should have been correct, that in the adjoining Portuguese Sphere the impala found there, which are identical with the Nyasaland family, occur in the winter months in their greatest numbers, and, so far from there being any separation of the sexes, the winter months seem always to bring them together. For this there would seem to be a comprehensible reason in the fact that during that season of the year the grazing grounds would be much more circumscribed than in the rainy season, when the whole face of the country is covered with a marvellously luxuriant tropical vegetation, affording a much wider range for the impala, as, of course, for all other similar species. It is doubtless due to this that during the summer or rainy season the presence of these animals in the vicinity of perennial streams is much less remarkable than in the winter months.

I can imagine no greater delight for a lover of nature than to stalk close up to a herd of impala and watch them from some place of concealment. Nothing could exceed the grace and daintiness of their every movement. If the herd be a large one, containing representatives of all ages and conditions, the picture is even still more compelling. As in the cases of so many species of

*To face p.* 152.

IMPALA.

African game, upon the female would seem to devolve the important duty of ensuring the safety of the entire community by the maintenance of unbroken vigilance. The older males stand or lie about, doubtless not insensible to the growing weight of the fleeting years; their heads are held rather low, their inadequate tails ceaselessly flicking at the wearisome flies, assisted now and then by the shadow of a backward-thrust horn. The younger animals, gaily conscious of the *joie de vivre* of the bright period of golden youth through which they are passing, hasten the slowly fleeting hours by means of a succession of friendly sparring matches, rearing up, goat-like, on their hind legs and clicking their half-grown horns together as head meets head in playful combat. The smaller fry, not yet possessed of horns or other outward and visible signs of advancing adolescence, lie near their mothers, chewing the cud with a quick, impatient movement of the tiny jaws. Over all, permeating all, an air of ineffable peace. Should, however, the sacrilegious observer grow weary of the arcadian scene, and his material soul yearn with a savage desire to possess a remarkably fine pair of horns which he espies adorning the shapely head of one of the elders of the small community, the effect produced by the discharge of his rifle is as astonishing as the previous one was beautiful. With one impulse, as though moved by an irresistible electric shock, the impala leap to their feet with a quick snort of alarm. They cannot at first understand the nature of the calamity that has befallen, and they

stand irresolute, looking this way and that, some of the younger animals, for no apparent reason, bounding high into the air. If the hunter remain hidden, several shots could be fired before the animals appear to realise what has happened to them, when, uttering a loud bark, not unlike that of the bushbuck, they stream away, leaping again and again ten and twelve feet into the air with a marvellous, elastic, bird-like bound which betrays a power such as probably no other animal in the world possesses in equal degree. Having retreated five or six hundred yards, the herd will often stop and reconnoitre curiously. If by this time the hunter should have discovered himself, or should have shown any disposition to follow on their tracks, they then lose no time in putting a much greater distance between themselves and him. They have a curious habit as a rule of retreating in a wide circle, and more than once, on having failed to get a shot on my first approach, I have been successful in cutting them off by hastily following a line at an angle to that of their retreat.

10' or 12' bound

They suffer severely from the attacks of wild animals, every species of the carnivorous families seeming to have formed a partiality for their flesh. So much is this the case that it appears hard to account for their immense numbers. Fortunately, they have been endowed with marvellous reproductive powers, and are, with perhaps the exception of the duikers, the only antelopes within my knowledge capable of producing, as they occasionally do, more than one calf at a

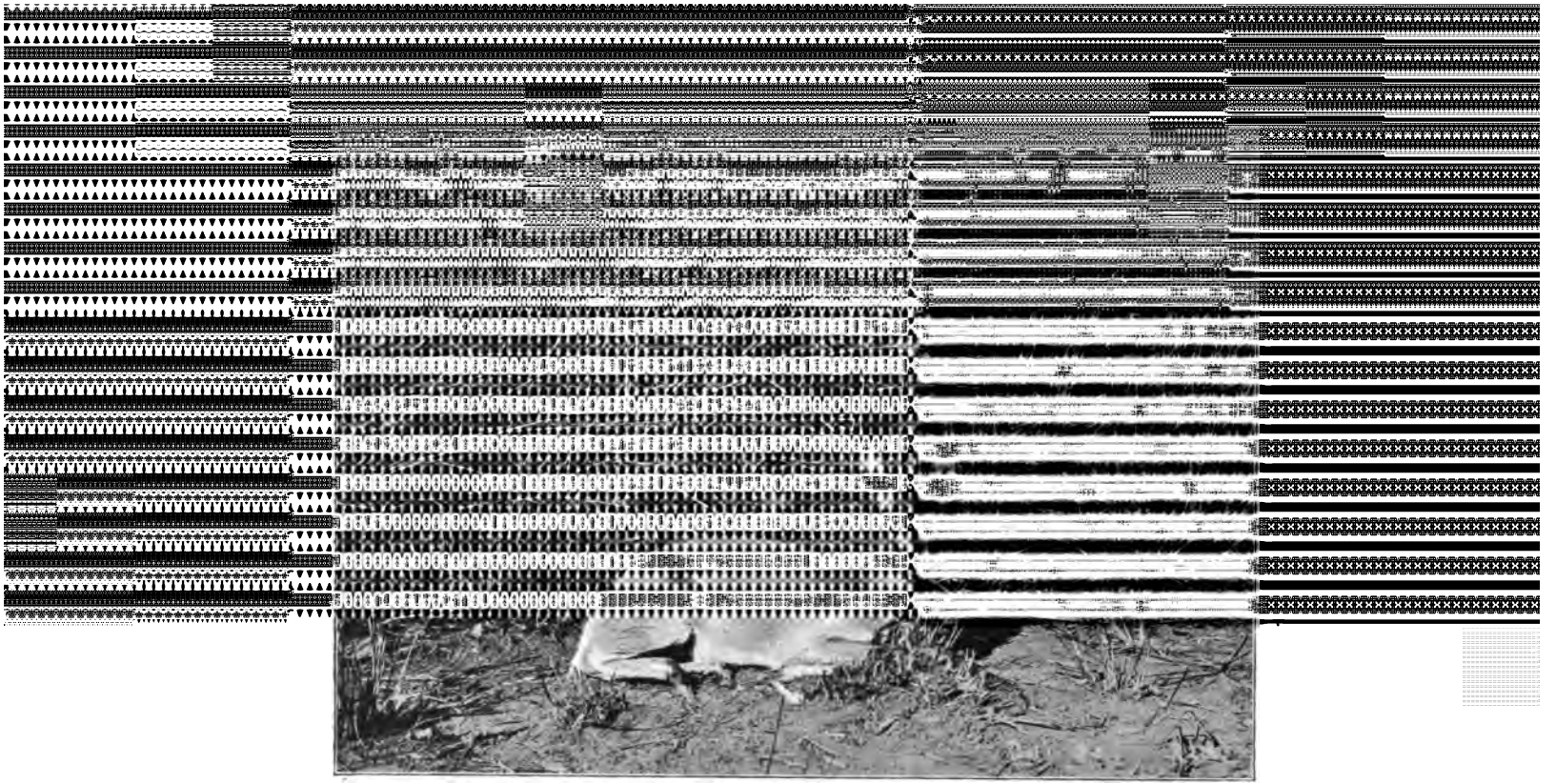
birth. For table purposes I do not think their meat compares with either that of the bushbuck or the reedbuck, although it is by no means to be despised; it has a somewhat singular flavour, which personally I do not appreciate, probably due to their diet of the leaves of certain aromatic bushes and trees, favourite among which is a short, stunted, elm-like growth with a very pale bark whose name I do not know, but which is singularly characteristic of the country most favoured by impala, especially in the winter season.

Zambezia possesses all three members of the Duiker family—the blue, the red, and the grey. In my experience, however, they are all three less general there than in certain districts of Nyasaland, in the Barué, and the Mozambique Company's territory. I suppose Shupanga Forest, and the wide wooded plains to the eastward which follow the course of the Zambezi almost to the sea, may contain larger numbers of these small antelopes than are found on the north bank of the river; and this view of the case coincides with the opinions of several experienced hunters with whom I have exchanged notes. Of the last named, the general coloration is a deep brownish red, paling to faint yellow under the belly. They have also, seen in the forest, a curious greenish shade of colour which seems to disappear on a nearer approach. I am not sure which is the larger of the two, but fancy, if there be any appreciable difference, that the advantage would be found rather with the so-called red than with the grey duikers; the curiously named blue variety

being almost, if not quite, the smallest of all the African antelopes, its size when full-grown being not much, if anything, bigger than that of the common wild rabbit.

The red duiker is of a foxy red colour, paling under the belly and inside the thighs in very much the same manner as the smaller beast. Taken roughly, on an average I should consider it probable that the grey or common duiker may reach in the forests of Zambezia a shoulder measurement of 22 inches or thereabouts, whilst that of the red may perhaps reach 23.

A very curious habit which these animals share with the klipspringer of the mountains and, I think, the steenbuck is that of depositing their dung in the same place over considerable periods of time. I have frequently seen piles of their droppings of varying ages in the forest which must have taken many days, or even weeks, to accumulate. They are entirely forest-loving animals, and very rarely leave the cover of the thick bush. At times, early in the morning, they may be seen feeding on the edge of the trees; but even this is of rare occurrence. On the appearance of danger they crouch, and I have often known them lie until but a few yards separated us, when they would bolt like hares, leaping high over the bushes and other impedimenta with a rapidity which seemed to suggest the shotgun rather than the rifle. I am told that a charge of fairly heavy shot is quite efficacious in bringing them to bag, but have always felt rather nervous of making a fruitless attempt, which would only cause pain



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DUIKER.

and suffering to the pretty, inoffensive little beast. I have, therefore, in shooting duiker and small buck adhered for some years to a most reliable little ·220 rook rifle which has proved admirably suited to this form of sport.

The straight, sharp-pointed horns of these small animals, which reach, in some cases, about 4 inches in length, are sometimes, though exceptionally, carried by females. It is, however, extremely difficult, if not impossible, on their bolting, when they invariably go straight away at a tremendous pace, to distinguish, in the shade of the forest, whether the animal carries horns or not.

Duiker are usually seen in pairs or singly. They are often found at prodigious distances from water, and I am convinced are able to dispense with it over long intervals of time. This I account for by the tremendous drenching dews of winter, which, until as late as ten o'clock in the forenoon, saturate vegetation of every description. The act of feeding, therefore, would furnish this small animal with sufficient liquid to enable him in the winter season easily to go for days without drinking, as that habit is usually understood, whilst in the summer, of course, the entire face of the country presents suitable drinking facilities within a few hundred yards of each other.

Duikers are the most delightful of pets, and become so tame that they can be taught various accomplishments. When I resided at Beira a few years ago I possessed a female of the grey

variety which wandered about both in and out of the Consular premises very much as she pleased. She would graze on a large open sand-flat immediately in rear of the house, fraternising in the most friendly manner with a fine bush-buck and some crested cranes, the property of my neighbours; but she always came back shortly before sunset, when she would sit up on her hind legs and beg for cigarettes, the tobacco of which she ate with great eagerness and enjoyment. In course of time, unfortunately, she learnt that by dint of much perseverance she could manage to push up the lid of the silver cigarette-box with her nose and help herself—which she did several times, I fear, before discovery overtook her. She was extremely fond of dry toast, but would never eat bread; and so far did her instinctive fears desert her that she paid not the smallest attention to dogs. On my return to England in 1906 poor Bessie was given by me to an English lady residing in Beira, but shortly afterwards, in endeavouring to leap the fence of the back premises in which she was confined, she broke one of her shapely forelegs, and had to be destroyed.

Among the several remaining small antelopes to which some reference must be made is that very beautiful forest-loving type called Livingstone's Antelope. This graceful form is extremely numerous in the forests of Shupanga, as also in various parts of the Quelimane district, as well as throughout the northern half of the Mozambique Province.

The habits of these pretty little creatures are not unlike those of the duikers; they are, however, much smaller than any except the blue variety. Except in regions where they are undisturbed, it is very difficult to see them, so wary and alert are they in all their movements. So far as I am aware, females of the Livingstone's antelope are entirely hornless. The prevailing colour of the males is reddish fawn, paling, as in the case of all the antelopes, as it extends beneath the body. Their horns are to me scarcely distinguishable from those of the duiker, and as a rule are about 8 inches in length, their shoulder measurement reaching 13 or 14 inches. They are, as I have said, exceedingly wary, and, owing to the thickness of their favourite haunts, most difficult to distinguish. I have always, on this account, felt extremely pleased with myself on the successful termination of a stalk, the more so as they appear to have a faculty of marking every stage of your approach whilst completely hidden by what you believe to be entirely covering you. In nine cases out of ten, therefore, on arriving at the point you considered to be nicely within range, the Livingstone is there no longer.

Here is another of the smaller species which are believed seldom or never to drink, but to subsist, in so far as the satisfaction of thirst is concerned, entirely upon raindrops, dew, and vegetable juices. In passing through Shupanga in 1909 I shot a small antelope which I have not made up my mind was not a Livingstone, but

which presented what seemed to me several marked differences. Its colour was not unlike the type we are considering—namely, a bright reddish fawn; but the belly and throat were straw-coloured, whilst, in addition to a marked darkening of the coat along the dorsal ridge, the entire skin on the upper portion of the body was distinguished by an unmistakable tinge of purple. In bringing this specimen to the coast, the skin was unfortunately, and to my great regret, stolen, I suspect by a steamer boy; but as there are, I believe, no less than close on forty divisions of the sub-order to which these antelopes belong, perhaps it is rather a mercy that no further addition to this number was permitted to be made.

Oribi occur as a rule most numerously in the more elevated regions of the Portuguese Province. They are of two different types—the Cape oribi, and the variety which has come to be known as Peters', a rather smaller animal than the first mentioned. Their appearance and habits are very like those of the little antelopes just mentioned, except that their affection for thick bush is not so marked as in the case of the duikers. Oribi are often to be seen in open grass country, on the summits of low mountain plateaux, as also, but not so frequently, on the plains of the lower levels. They live exclusively on a grass diet, and from the circumstance of being seldom seen far from water it is to be apprehended that they do not share the abstemious habits of the duikers and Living-

stone's antelope. They are far from gregarious, as this term is usually applied, for as a rule a male accompanied by one or two females make up the family party. When disturbed or startled, oribi go straight away, never pausing to look back; and, ungallant as I regret to be compelled to admit it, the male always leads the way.

As we come to the mountain regions another minute but graceful form is that of the leaping Klipspringer. Here is another advocate of abstention from liquid nourishment, whose sole refreshment of that kind is said to be obtained by chewing the moist fronds of the common aloe. Still there can be no doubt, when regard is had to the arid fastnesses of the granite ranges he inhabits, that in the dry or winter season it would be impossible for him to obtain water.

One of his peculiarities is the extraordinary bristly texture of his coarse greyish coat, and the second is his remarkable hoof, which gives him a spoor more closely resembling that of a small pig than anything else I can recall. But the amazing, chamois-like confidence with which he leaps from one craggy rock to another apparently so distant as to render reaching it impossible for anything unendowed with wings, sailing almost bird-like over frightful chasms, and bounding at full speed along the edges of dizzy slopes, must be seen to be believed. Needless to say, he is not easily bagged. He frequents the sheltered side of a mountain range, especially those whose wall-like sides rise from an inner

circle of foothills and spring almost precipitously until, with a few strongly marked inequalities, affording foothold for nothing but the klipspringer or the eagle, they reach the edge of the plateau above. From these eyries, therefore, except on the rare occasions of his descents to lower levels, the klipspringer scans with who shall say what inner feelings of conscious superiority the approach of the crawling danger. It requires but a few effortless springs to bear him safely out of harm's way, so there he boldly stands, chamois-like, or perhaps ibex-like, all four feet drawn closely together as he balances his shapely body on some tiny projection or summit of rock scarcely large enough to offer standing room to an eagle. A few moments of rapt, statue-like, inquiring gaze, and he seems to rise abruptly into the air. A series of rapid, springy bounds remove him from our ken. He is gone, who shall say whither ?

I think the tally of the small Zambezian antelopes exhausts itself with the Steenbuck, which exists in considerable numbers on the open grassy plains of the entire district. In the Cheringoma region, I have seen numbers of these animals, but, beyond procuring a good specimen, was but little attracted to them, the country at that time being full of other and more interesting beasts, of which, since then, it has been to a great extent denuded.

Steenbuck are curious, solitary little creatures, and though found at certain seasons of the year in grassy clearings and on the edges of the plains,

they may as a rule be met with in scrubby bush country, and, more rarely, in the forest itself. After the burning of the grass in the dry season, and with the appearance of the new tender shoots which, about the month of September, begin to surround the blackened grass roots, the steenbuck and other tiny forms steal quietly out from their winter retreat, and are then more easily seen than in the summer. With the duikers and several other small types they share the peculiarity of being, it would almost seem, unaffected by the sound of the discharge of firearms. Whether this arises from deafness I very much doubt, as their power of locating other sounds is incontestable; but the fact remains that shot after shot may sometimes be fired at their tiny forms without causing them to display the smallest concern or consciousness of what is taking place.

I have on many occasions, whilst sitting down to rest in the forest arter, it may be, a long and exhausting tramp after other game, watched unseen the movements of these pretty, dainty little creatures as, all unconscious of observation, they have pursued their daily avocations. I can see them now, as with slightly bunched-up hind-quarters, and head held low, they advance mincingly, a step at a time, along some narrow, shady forest glade, the tiny, restless, white-edged tail moving nervously, ceaselessly, and rapidly from side to side—a personification of wary alertness, a very incarnation of delicacy and grace. I think the most delightful family of domesticated wild things I have ever seen is one

of five small antelopes, strongly resembling the Livingstone, which I saw recently in the gardens of the British Agency at Zanzibar. Here a large piece of shaded lawn had been enclosed, and the tiny creatures existed in conditions as near their natural ones as could well be devised. I could never have wearied of watching them as, entirely freed from the anxieties and dangers of their daily lives in the wilds, they gradually grew more and more accustomed to human society. But, however tame these small antelopes become in course of time, they never wholly lose that tendency suddenly to grow panic-stricken at some momentary fright, unseen and unnoted, it may be, by the bystanders. I have often seen them in moments when to all appearance their confidence had been entirely gained suddenly as it were withdraw into themselves, and make a rapid dash for some neighbouring refuge or cover, only to issue forth a few moments later as calmly as though nothing had happened to disturb them.

## CHAPTER VIII

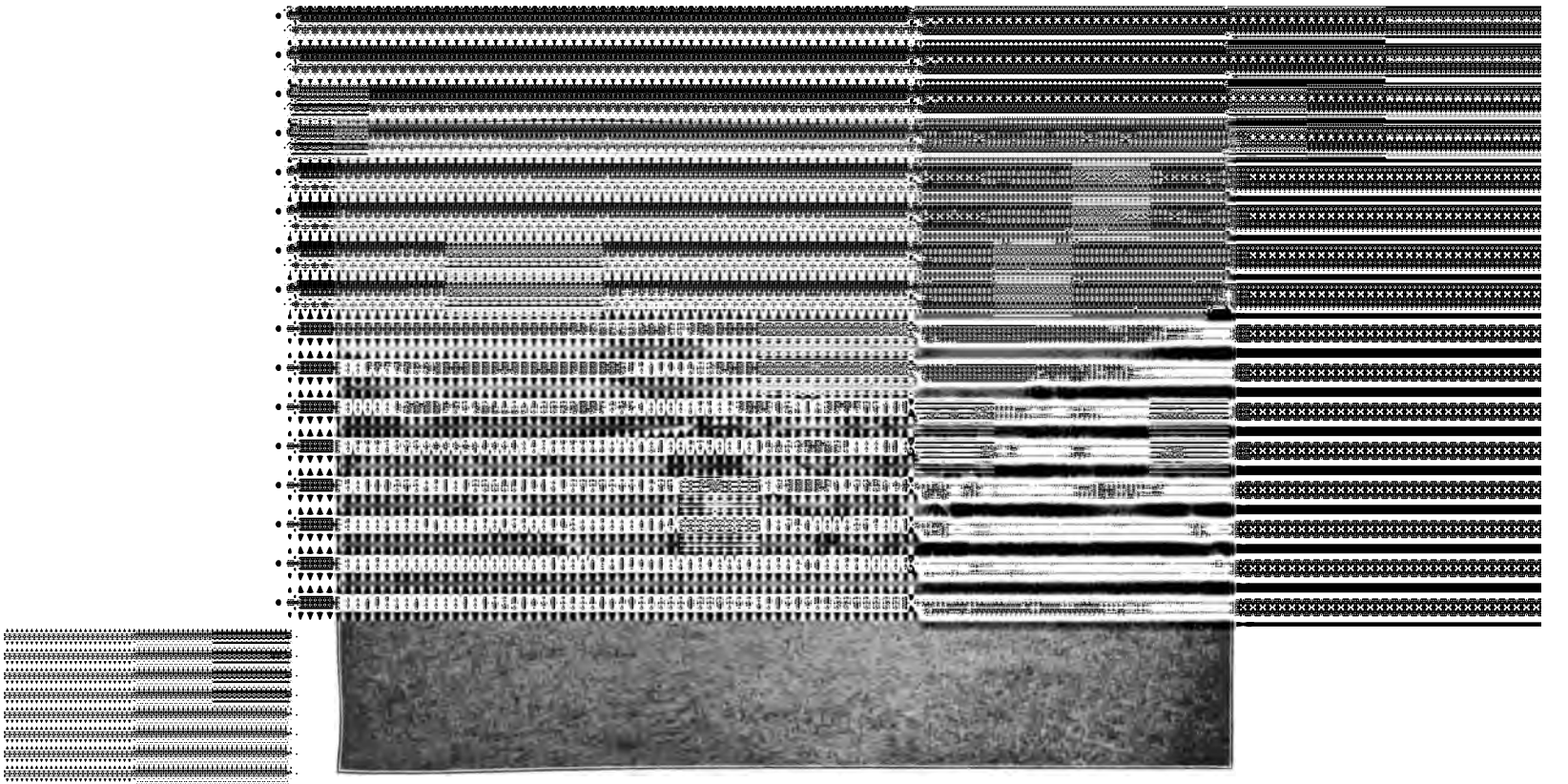
### LION : LEOPARD : LYNX

THE Lions found in practically all parts of Zambezia are in every respect identical with those of Central and South Africa. In certain portions of the country they are very numerous and bold, whilst in others they appear at intervals only. It may, however, unhesitatingly be said that throughout the length and breadth of the country no single place—not even the most considerable town or settlement—is safe from periodical visitations from lions. As a rule these animals follow game, especially zebras and buffaloes; their sign and spoor are also constantly met with in the vicinity of large herds of elands, and doubtless of other animals; but for some reason or other—it may be due to a periodical liking for change of diet—lions will suddenly turn their attention to human habitations, and then either man or his domestic animals must pay a heavy toll.

In appearance the lion of the Zambezi valley is a splendid and most majestic creature. Although in all probability no beast known to zoology has commanded from the earliest days more interest and attention, one detail regarding him, so far as I am aware, would appear entirely to have escaped attention. I refer to his weight

at maturity. I have read many books in which this animal's characteristics and appearance have been ably dealt with, and I have discussed the point with numerous experienced observers, but none could tell me with any claim to approximate correctness what a full-grown lion might weigh. The largest male shot by me was a heavy burden for four natives of good physique when secured to a long bamboo pole, and after carrying him in to camp, a distance of four or five miles, they displayed a considerable amount of fatigue: from this fact I have been led to estimate the weight of a well-developed male of medium age at between 850 and 400 lbs.

I should think that in all probability the district of Zambezia in which at the present time more lions are found than in any other may be that of Boror. Thence, westward, they are found in considerable numbers round the eastern side of Morumbala Mountain and on through the Pinda range. Near Quelimane itself they also occur, seven having been shot in one week by my late Consular Agent there, Mr. René Wuilleumier, about a year ago. But in Boror they are such a danger, and so many native lives have been lost during the past few years as a result of their attacks, that the Concessionary Company administering this immense region advertised not very long ago a standing offer to pay £25 for every one destroyed within their borders. This resulted in the country being visited by several European hunters, but so far as I have ascertained, not many successes attended their efforts. I passed through



*To face p. 166.*

A FINE BAG OF LIONS.

a portion of Boror in 1911, and, judging from the sleepless nights that they caused my carriers as they roared and grunted round the camp, I should imagine that the evil reputation of this portion of the country has been in no way exaggerated. I did not actually see any, as, being on service at the time, I had no opportunity of hunting them, added to which the nights were dark and moonless; but I have unprofitable recollections of one vigil of several hours spent sitting with my rifle across my knee wondering when the moment for using it would come, whilst my people, grey with fright, could only be restrained with the greatest difficulty from making a dash for the nearest belt of trees. In no part of Africa in which I have lived or travelled have I heard lions at night in such evident numbers, or seen by day so much of their spoor. There is certainly in Boror a fair amount of game, but not in my opinion sufficient to justify the presence of the quantities of lions which for years past have gained for this district so sinister and unenviable a reputation. The numbers of native casualties have for years been extraordinarily high—so much so that the Company have not seldom experienced difficulty in maintaining communication between their outposts owing to the natural reluctance of their employés and labourers to undertake the duties of mail-carriers. I was informed by the people themselves that all the lions in Boror were man-eaters, having developed so keen a relish for human flesh that they practically left the game alone; and although this is no doubt an

exaggerated view to which their fears, and the great loss of life they have sustained, may have given rise, the fact remains that more people have been taken of late years in Boror and the neighbouring Prazo of Lugella than in any part of Africa with which I have ever been acquainted.

The lion of this part of Africa is a full-maned beast, varying in the colour of that striking feature and his skin from dark brown-shaded grey, with the so-called black mane, to a body colour of tawny senna with a mane of pronounced yellowish tinge. I have never seen a maneless lion in these regions, or one of mature growth which did not display at least some symptom of their usual characteristic adornment. It has been said that the greatest fullness of this hirsute appendage displays itself in open rather than in thick bush country, and that in the latter, due to the losses sustained in traversing the thorny undergrowth, the manes of these animals are always poor. Nothing, however, could coincide less with the results of my own observations. There are few portions of Zambezia characterised by wide plains such as those of which such immense areas of South Africa consist; almost the whole of the face of the country is covered by forest usually thick, thorny, and dense. But of the lions shot by me in this part of Africa, and of the skins obtained there which I have examined, I do not remember one which was not normally maned, whilst the growth of several has been distinctly above the average.

A very interesting skin which I well remember was one shown to me by my friend Captain Lage, formerly the Commandant of the great Barué district to the south of Tete. This, with a well-developed mane of the so-called yellow variety, had been taken from a full-grown male lion which was discovered by natives quite dead, fully 20 feet from the ground, and firmly wedged between either two trees growing very closely together or in the angle of a massive fork. I was told that from the surrounding indications it was clearly a case in which this animal had aroused the resentment of a female elephant, which had evidently seized him in her trunk in a paroxysm of rage and hurled him into the position in which he was found, whence it had been impossible to extricate himself. Both flanks were almost denuded of coat, showing the frightful struggles he must have made to escape; but the trees or the branches held firmly, and who amongst the cowering denizens of the jungle should obey such a call for help as that?

It is, of course, very difficult by means of generalities to afford any adequate basis of comparison of the sizes of lions—or any other animals, for the matter of that—existing in various parts of the country, but the following measurements of a fine male which I shot in the district we are considering in 1902 may give some clear idea of the size to which they there attain. This lion was a fine, well-developed beast in perfect condition, whose mane, of grey-brown and yellow under the chin, somewhat exceeded

the average in size. His length unskinned from nose to tail was 10 ft. 2½ in.; height at shoulder, 3 ft. 6½ in.; maximum girth, 4 ft. 5 in.

Lions in my experience, on the rare occasions when I have met with them by daylight, never occur in the large parties in which they have been reported in South Africa, Rhodesia, and elsewhere. The most I have ever seen together were five, but more frequently, I think, they are found in pairs, or two males hunting together. Although, of course, essentially nocturnal, it is by no means unusual for them to hunt during the daylight hours, when, in the case of two or three acting in concert, their proceedings appear to be regulated by a well-understood, preconcerted plan. Thus, one, told off for the purpose, will very skilfully round up a herd of whatever animals they may have designs on, and, grunting noisily, will shepherd them to the spot where the partners are concealed. Should the attempt prove abortive, they will all move forward and repeat it, but if successful they will remain on the spot, if undisturbed, probably through the night, going off to water at dawn, after which they will lie up for the day, possibly revisiting the remains at night again, or possibly not. If hunting singly, nothing can exceed the astonishing quietness with which the lion approaches his prey, and always up wind. No well-fed, pampered Persian cat ever crossed the velvety drawing-room carpet more noiselessly. On arriving, all unsuspected, at the required point, he makes one lightning dash, usually seizing

the beast with his great rending canine teeth upon the nape of the neck, whilst with his claws he grips hold of the face, pulling it round and exerting his tremendous strength to break the victim's spine. This method of attack, added to his great weight, soon crushes out all resistance. Unless very hungry, a lion, after killing a large animal in the manner described, will not devour him immediately; he will confine himself to drinking the blood, which he laps daintily like the great cat that he is. Thereafter his proceedings, doubtless hallowed by long custom, almost invariably follow the same quaint lines. The kill is first very skilfully disembowelled, and the entrails are more or less buried. He then discusses, no doubt by way of *hors d'œuvre*, such dainty morsels as the kidneys, liver, and other viscera, going on, after these have been enjoyed, to the thighs and other "meaty" portions of the beast. His capacity is large and his appetite inordinate, and thus it is that in lean times, when game is not plentiful, he can abstain from food as long as, or perhaps longer than, most animals in similar unhappy case. But although doubtless keenly alive to the superiority, if it be obtainable, of nice juicy meat, he nevertheless adapts himself to circumstances by taking advantage of any opportunity of obtaining a meal which may haply present itself. Thus he has been known to sit with his gigantic paw patiently poised for hours at the hole of a field-rat, to devour fruit of various forest trees, to fill his omnivorous

stomach with locusts and with the veriest offal of any kind, and, as a friend of mine informed me, to appease the pangs of an unpleasant vacuum with the malodorous flannel shirt of a long-unwashed native. There are authentic stories to the effect that he does not, in certain circumstances, hesitate at even cannibalism, if no other means present themselves of satisfying the pangs of hunger. It may be taken, therefore, that there is probably no known variety of beast which displays a more surprising catholicity of taste.

The female produces two or three cubs at a birth, and these remain with the parents until, on the arrival of their second teeth,—at the age of about two years,—they proceed to hunt for themselves. By this time they are very nearly full grown, and have been duly and carefully instructed by the parent animals in all the arts of their bloodthirsty craft. During early infancy they are carefully fed by the mother until old enough to accompany the older animals on their periodical forays, when, it is said, the latter encourage them to make the attack, and stand by to see it properly delivered. There can be little doubt, however, that the family remains intact until the young beasts are almost mature. In Cheringoma, a few years ago, I surprised five lions on one occasion which appeared to me at first to be of equal size; but on careful examination with powerful glasses I satisfied myself that three of the animals were quite young, the manes of two being scarcely perceptible. I was

so fortunate on this occasion as to secure both the parent beasts. It is said, and I suppose with good reason, that of the considerable numbers of cubs annually born but few live to reach maturity, the remainder falling victims to a variety of infantile ailments. Here is a dispensation of kindly Nature with which I fancy few indeed will quarrel, for one's mind loses itself in a wide field of harrowing conjecture as to what the aspect of the country would have been if, since the earliest days of this animal's arrival from Asia, their young had invariably survived.

Contrary to general supposition, which has probably arisen from the stories told of the Indian tiger, the African man-eater is by no means necessarily an aged or worn-out beast. Many instances are recorded of this habit being contracted by young and vigorous animals. I remember, whilst passing through East Luabo on one occasion, being surprised by the number of deserted villages through which we passed at a point near the southern boundary of that large district. I was informed that the people had abandoned them owing to the depredations of lions, and that they all appeared to be man-eaters. I devoted two days and two nights to hunting this region, and although I heard them nightly, and twice they broke in the bush in front of me, I did not actually see one on this occasion.

When a lion attacks a native village, he usually does so by night, when these animals are far

night

bolder than they are by day. In most cases he leaps upon the roof, and in a surprisingly short time claws a way through the thatch, which he scatters in all directions. It seems amazing to us that during this performance the inmates should not have time to make good their escape by the door; but the African is a heavy sleeper, and I suppose his first intimation of the dreaded creature's visit is to find himself dragged forth in its jaws. I have more than once seen the holes made by lions in the act of entering by the roof of a hut, and it affords striking evidence of the enormous power with which these animals are endowed. On other occasions the wall of the hut is broken in by one or two tremendous blows, but in practically every case the unfortunate native seems to be either too paralysed with fear or too sound asleep to become conscious in time to prevent the catastrophe.

paw

When charging as the result of a wound or of some act of provocation, a lion will often kill his human aggressor by a tremendous blow of the forepaw, the claws of which have been known completely to pierce the skull; but when hunting human prey, be it on the native path or elsewhere, it is the usual practice to seize the victim and carry him off alive, a circumstance to which not a few persons owe their lives. I remember when I was living in Nyasaland some years ago, two Europeans were hunting in a portion of the country somewhat infested by lions, when, in the middle of the night, one of these animals entered the grass shelter in which they were sleeping, seized one by

the hip, and coolly took him away. The unfortunate man actually awoke to find himself being carried bodily off. His cries quickly awakened his companion, who rushed out with a magazine rifle and fired rapidly in the direction from which the sounds came. The startled lion dropped his intended victim and decamped. I saw this man after his discharge from hospital, where he spent many weeks. He was quite recovered, but severe injury to the hip bone rendered him extremely, and I fear permanently, lame. In another case a lion entered the tent of a friend of mine, who, being fortunately a light sleeper, awoke before the beast had time to do him any injury. With great presence of mind, he slipped out of his camp bed on the side nearest the tent wall, whence his loud shouts were successful in scaring the lion away. The ghastly story of the midnight marauder which entered a railway compartment on the Uganda Railway and took out one of three hunters who had actually come out in pursuit of it is too well known to need repetition; but perhaps sufficient has been said to show conclusively that the old supposition that lions but rarely enter a tent or other shelter is entirely erroneous, and that in parts of the country wherein they are numerous travellers should invariably take means, by the erection of a thorn *zareba* or fence of some kind, to secure their safety and those of their native followers. I think that all experienced hunters and observers are agreed that dark, rainy nights are those on which lions appear to lose all dread of man, and when their boldest and most fatal

exploits are planned and executed. In clear moonlight they are by no means so dangerous, and will often take to their heels with the same celerity as usually characterises their retreat if encountered in broad daylight. Misogynists will learn with bitter satisfaction that on nearly all their predatory excursions it is the female who does not only most of the hunting, but is usually the first aggressor; and certainly in my experience of these animals it is to her that I have owed most of my moments of embarrassment. When she has cubs to defend, the lioness is exceptionally, almost recklessly, savage; but on these occasions her manifestations of anger are perhaps more in the nature of demonstrations intended to scare off the unwelcome intruder, and, so far as I am aware, but rarely result in much harm if a hasty retreat be promptly beaten. But in daylight cases of unprovoked attack on Europeans are exceedingly few. In almost all cases his instinctive fear of man is too strong for him, and the lion, be he one or many, promptly takes to flight. But what constitutes no little of the danger of hunting these animals is the surprising uncertainty of what line of conduct they will, at a given moment, pursue. On some occasions, on sustaining injury they will charge promptly and viciously—especially the females; whilst on others they will retreat into thick cover and make no effort whatever to take vengeance upon their pursuers. I think there can be little doubt that as lions vary in size, appearance, colour, and other features, so also they vary in personal courage

and pugnacious disposition. In these circumstances it seems to me most unsafe to generalise upon a matter fraught with so much personal risk. When, therefore, everything points to the probability of there being but little similarity between the precise course of action which as a whole these animals will follow, I find it preferable, and certainly safer, to look upon each lion encountered as likely to be governed by his own personal views of the situation, and to be carefully dealt with according to the merits or otherwise of the attitude he may assume.

Lion-hunting is a form of sport possessed of fewer attractions than any I know. To hunt these beasts by daylight, unless one should come unexpectedly upon them or their fresh spoor and follow it in favourable circumstances, is the most exasperating and disappointing form of fruitless toil to which the hunter of great game can possibly condemn himself—unless, of course, he hunts with dogs, a poor and unsportsmanlike amusement. There is only one royal road to lion-shooting, and that is to undertake it by night, or, in a word, to "sit up" for them. We have all done it, I suppose, and few of us there assuredly are who do not look back with a grimace upon the miserable discomfort, the cold cramped limbs, the nervous tension, and finally, as the uneventful night advanced, upon the waning interest and the irresistible desire to go to sleep. The most promising circumstances in which to sit up for lions is to do so over their own kill, if the hunter should be lucky enough to discover it. At times,

of course, success attends the bait of an animal's carcass shot and planted for the purpose; but it is obvious that the chances are greatly in favour of his coming to the feast of which he is already aware rather than to one provided for him without his knowledge. Opinion is divided as to the relative merits of a pit or a platform, but personally I think there can be no question on this point. The pit involves preparation which must present to the returning lion the appearance of something new and strange. In my experience, at any rate, the disturbance of the smallest of the objects surrounding a kill is enough to fill the lion with misgiving, and cause him to forsake it even in the complete absence of suspicion of another kind.

platform

A platform or *machan*, as it is called, constructed some 10 or 15 feet from the ground, not only leaves things exactly as they were, but enables the hunter's scent to pass over the lion as he approaches or lies up to the kill. In the old days blue lights were usually provided for night shooting of this kind, but a contrivance shown to me by Major Statham, who I believe elaborated it, entirely outclassed the old-fashioned devices. It

Jack-light

consisted of a small electric lamp fitted with an extremely powerful reflector secured to the front of the hat-band by a hook or safety-pin. This was connected by wires passing over the back of the brim to a dry battery carried in the outside coat pocket, and operated by a switch attached to a convenient button-hole. This lamp throws a powerful ray of brilliant white light above the level of the eyes, which are thus in no way dazzled,

whilst the ray follows every movement of the head. On one occasion, by the aid of this miniature search-light, Major Statham, shooting from a *machan*, killed either three or four full-grown lions in almost as many seconds.

Statham 140-1

Very different was the painful experience of a gallant party of two who sat up—so the vouched-for story goes—at Zomba in the Nyasaland Protectorate some few years ago for a lion whose depredations for many nights had caused considerable annoyance and alarm. Recourse in this case was had to the usually futile practice of tying up a vociferous goat within easy range of the tree-built platform upon which the hopeful hunters ensconced themselves. It was a pleasant, light night, illuminated by a fitful half-moon, and after the first few hours of excited anticipation the time lagged rather badly. I fancy the watchers must have begun to doze; but be this as it may, an unusually strident "baa" from the ill-starred bait suddenly recalled them to consciousness. They looked out from their sheltering tree, and found themselves gazing upon the lion, which, close behind the frantic goat, stood regarding it with an air of amused surprise. Together the startled hunters fired—the good old-fashioned black-powder rifles speaking as one. It was a still night, and, as they prudently refrained from an immediate descent, several moments passed before the smoke cleared away. Then they saw that which they never told, but which, in spite of their secrecy, was soon yelled from the house-tops. No mighty savage form lay there

to gladden their eager eyes, but with one final strangled "baa" the victim yielded up her gentle spirit—they had shot the goat!

Personally I am not a lover of night work. I find in my experience that after a long and fatiguing day's shooting, in the course of which the hunter may have covered anything between 20 and 30 miles, it is extremely difficult to keep awake while sitting up in a cramped position; and, added to this, the danger to health involved thereby is out of all proportion to the measure of usual success. But it must be confessed that to those who desire to shoot the cunning and elusive lion, it constitutes, I suppose, the only fairly certain means whereby, with perseverance, good-luck, and several other inestimable advantages of a like kind, success may be attained.

Of course, although the opportunities of doing so are on the whole very rare, an encounter with lions by daylight can be undertaken with much more certainty than when one is dependent upon artificial light not only to shoot him by, but also for the no less important and even exciting incidents which at times follow the shot. Putting aside this uncertainty, I think all lion-hunters are agreed that if the beast be wounded, and the range over 50 yards, he will retreat much oftener than he will charge. Lions are, as a matter of fact, very easy beasts to kill if the hunter be cool and the rifle held straight; but a time will assuredly come to everybody, even the coolest and most capable, when, by an unforeseen happening of some sort, the little mistake will be

made which makes all the difference between a dead and a wounded beast. Should the lion then come, nothing but *sang-froid* and straight shooting combined with great quickness will save the hunter from grave injury at the very least. If, on the other hand, he should bound into the jungle with a roar of pain and rage, the greatest care and caution must be exercised in his further pursuit. Lions have in such circumstances a most remarkable and uncanny knack of concealing themselves behind a tiny cover which one would almost think barely sufficient to shelter a rabbit. If followed, they will often lie low until the hunter, his eyes fixed upon the ground in search of blood-spoor, which is nearly always very faint, approaches near. Then there is a hoarse grunt, a lightning rush, and the great beast, open-mouthed and claws shot out, is upon him without any more warning. The man's disadvantage will thus readily be appreciated. There are, in such a case, unhappily, very few who have survived to recount their experiences, but, as I think my readers will agree, it would be hard to imagine a more nerve-shattering incident.

In the Quelimane district some few years ago, a young German gentleman whom I knew had such an experience as I have described. He was a tall, powerful man, and had not had much, if any, experience of lion-shooting. On the occasion to which I am referring he was returning to his camp one evening armed with a light magazine rifle—a Mauser or Lee-Metford, if I mistake not—when he espied a lioness in the act of emerging

from a brake of dense bushes. He fired at her at a distance of 60 or 70 yards, and must have wounded her severely. The lioness with a hoarse roar turned back and re-entered the cover, into which, with great foolhardiness, the hunter immediately followed. He does not appear to have proceeded far on her spoor when, without any warning beyond a succession of exasperated grunts, the lioness charged. As he afterwards expressed it, "She seemed to come from nowhere," and in a moment she had him by the shoulder, her great claws lacerating his back. In this terrible plight, thanks to his great personal strength and activity, he wrestled valiantly, kicking the lioness in the stomach with his heavy boots, and not only managed to maintain his perpendicular, but, thanks to great length of arm and shortness of rifle-barrel, he actually managed, by pulling the trigger with his right thumb, to put another bullet into his enraged assailant. She then released her hold and left him. The young German was luckily close to his camp, and though he was badly clawed, the lioness, probably owing to age, had not inflicted serious injury upon him with her teeth. To the liberal and immediate use of permanganate of potassium was doubtless due the rapid recovery he made from the inevitable septic poisoning resulting from the clawing he received, which afforded eloquent testimony to his surprising escape. Poor fellow, his respite was not a long one, for the following year he met his death beneath the knees of a wounded elephant.

I do not know whether Africans are sus-

ceptible in the same way as Europeans to the action of the poison with which the foul impurities upon the lion's claws saturate them, but I have sometimes thought not. An old native friend of mine, a headman in one of the villages in Machinjiri, was clawed in three cleanly cut seams from shoulder to waist on one occasion as he made his narrow escape with a wild rush from the spring of an attacking man-eater. He told me that although the long lacerations did not bleed much at the time of their infliction, they nevertheless healed up without any untoward symptoms such as usually accompany a lion's claw wounds. Another case was that of a native in one of the villages of Cheringoma. This man, whilst employed as a mail-runner between two administrative posts, was attacked by a lion one evening, but managed, by presence of mind uncommon enough in the black man, although badly clawed, to escape with his life. The lion rushed upon him from behind. With surprising resource he flung his mail-bags at the animal's head, and in the momentary confusion fired at and no doubt wounded it. In any case, the lion went off, leaving his intended victim to hobble as best he could to the nearest habitation. The injuries sustained, which he was rather proud than otherwise of exhibiting, took the form of severe and deep lacerations on the hips and buttocks; but, he informed me, in spite of their severity, he was back at his work in little more than a month.

African immunity to poison?

But I cannot conclude my remarks upon the king of beasts without sending to the printer the

legend following wild and beautiful legend of British East Africa, which I believe has been told often enough before in that favoured land, but which may not yet have reached the ears of hunters outside it. On one occasion, in those good old days when there was no railway or telegraph wire or other annoying contrivance calculated to get in the way of those persons whose one ambition it was (and perhaps still is) to be a law unto themselves, a considerable expedition of pack-donkeys on its way up country was passing through a region where lions were known to be numerous. After the first night spent within this danger zone, the donkeys were duly saddled and laden, and, once on the way, it was most forcibly remarked by all hands that, however drowsy their rate of progression might hitherto have been, nobody could now complain of their slowness, since it took the native and European attendants all their time to keep up. But one donkey there was which dawdled, and it was not until his arrival in camp that, amid appalling commotion, the truth was at last apparent. It seemed that the preceding night a lurking lion had succeeded in getting among the donkeys, with one of which he gorged himself to such an extent that all desire to escape left him. The following morning, as dawn drew nigh, he was so inert, weighed down by the immense weight of donkey which lay heavily upon him, that he allowed himself in the darkness, and in mistake for the deceased animal, to be laden with the others and hurried along after them. The record march which resulted was thus due to his scent,

which, every time he drew near to the flagging leading files, inspired them with their astonishing and unaccountable energy. I have never been able satisfactorily to ascertain what became of the lion, and it has always seemed to me that neglect to place on record his ultimate fate was a most serious and lamentable omission.

Although lions are slowly tending to grow more and more difficult of access—falling back gradually, as it were, before the slow advance of the tide of civilisation—I suppose many years must nevertheless necessarily elapse before they will be driven to take refuge in the solitary forest fastnesses to the north of the Zambezi already inhabited by so many of their race. South Africa has gradually pushed them back to the farther banks of the Orange River, but beyond that— Orange R.
their southern limit, so to speak—there are few centres outside the larger and more populous cities where a marauding visitation of lions might not take place. The great distances they are accustomed to travel, the readiness with which, without any pressure, they take to the water, and their great wariness and intelligence—all these qualities and several others are of a character calculated greatly to militate against any prospect of their early extinction.

The "Grey Cat" of scientists, or the Leopard, as he is known to persons intelligently interested in African zoology, is by no means confined to Africa. In North and South America, with slight differences of appearance, he is known as the Puma or Jaguar; in Ceylon and

India he is the Panther, in addition to being known by his own name; whilst, with that fine independent disregard of accuracy which is so striking a characteristic of that country, he is known throughout South Africa as the "Tiger." But the leopard of Zambezia, identical in type, size, and colouring with those found all Africa over, is a handsome beast whose skin is usually one of the first to ornament the premises of the newcomer, probably never destined, even after years of residence or wandering, to behold him in the flesh. Africa does not contain in all its length and breadth a more cunning, silent, or elusive animal, nor yet one with greater powers of destruction, to which so frequently he gives full rein, as the leopard. Hidden during the day in thick cover, in rocky, tree-clad ravines, or in the shady retreat afforded by the gigantic limbs of some vast lliana-covered forest tree, the leopard waits thus efficiently concealed until the shades of night send him faring forth to the game-path, the water-hole, or the hen-roost. Wholly nocturnal by habit, there is probably no rarer African experience than to encounter his beautiful, lithe, graceful form abroad in the daylight hours. At early dawn he quits his kill and drinks at some neighbouring water, and it will be well understood that, as most of his ambushes are near by the drinking-places of the game beasts, he has not far to go to quench his thirst.

The Zambezian leopard is the incarnation of sinuous, feline stealth—a beautiful cat, in a word, weighing about 100 to 120 lbs. and between

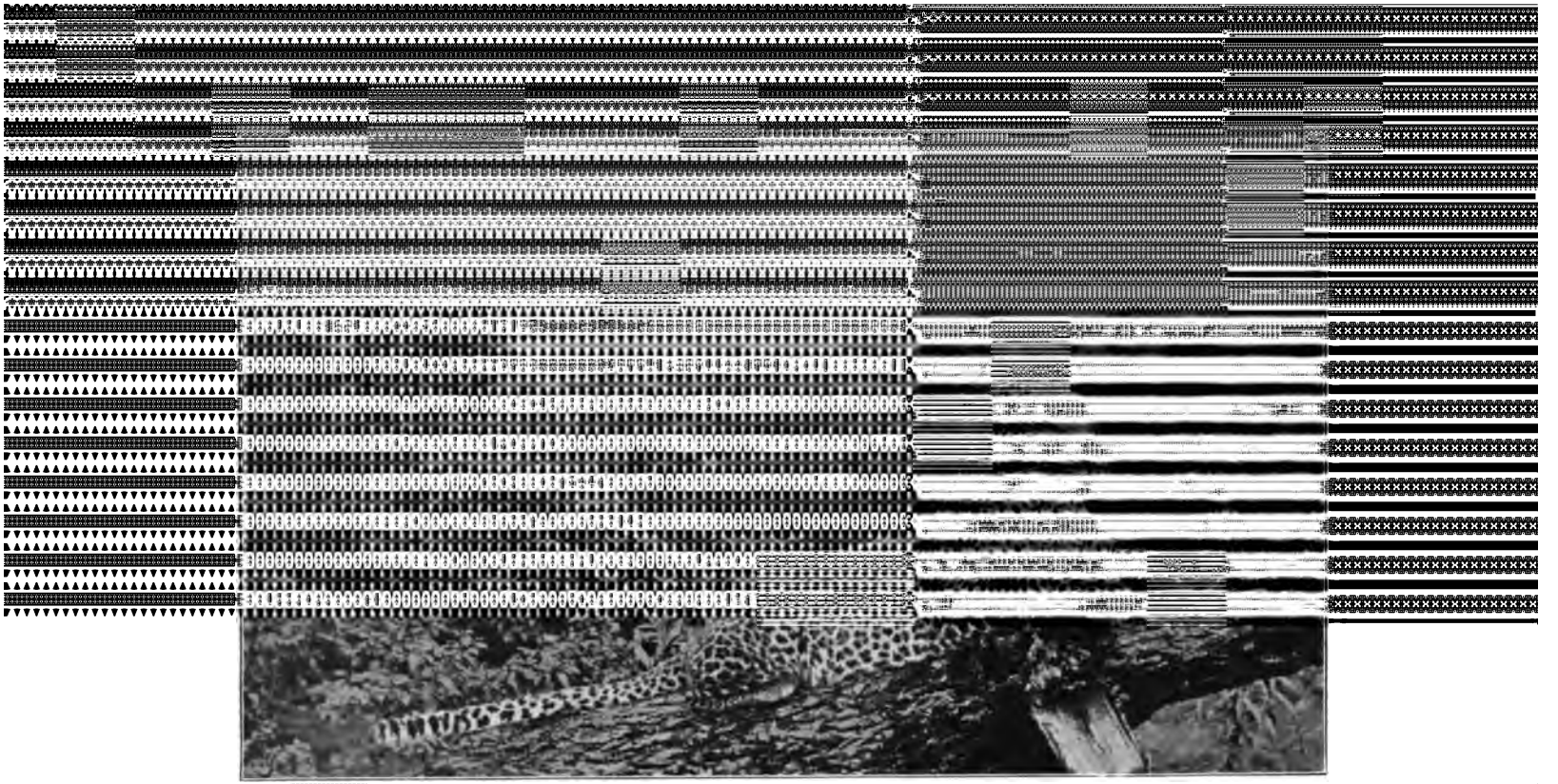
6 and 7 feet from nose to tail-end. What he lacks in impressiveness, as the lion's near relation, he gains in beauty of colour and markings. Seen in the early morning, he crosses your range of vision like a swift, yellowish flash; but if your shot should have been successful, you find that the pale creamy smudge which at a short distance he resembled resolves itself, on nearer approach, into a delicately coloured coat spotted—or, to be more precise, rosetted—in black upon a pale, softly furred, sulphur-coloured ground, growing white under the belly and on the thighs, fore-arms, and throat. Near the dorsal line the spots or rosettes are much more numerous than on the flanks, and the colour of the skin is generally darker, and richer in its suggestions of yellow. The leopard's head is rounded, somewhat heavy for the size of the body, and the ears slightly pointed. The tail is usually thick, full, and beautifully and softly furred.

I wish it to be understood that the foregoing passage more or less correctly describes the low-country leopard, found—with luck—upon the banks of the Zambezi. In the higher elevations the same animal exists, but possessed of a much thicker, finer, and softer coat. So much is this the case that several attempts have been made, I understand, because he wears a slightly heavier suit of clothes than his brother of the heated plain, to give him a separate scientific designation, and add one more to the number of local varieties into which this animal has been so foolishly and unnecessarily divided.

The habits of the leopard are not unlike those of his relative the lion, except that he rarely, so far as I am aware, becomes an habitual man-eater, and is not given to attacking human beings unless wounded or otherwise provoked. Once brought to bay, however, he is a most dangerous animal, and will charge his assailant with the utmost courage and resolution frequently in cases where the lion would retire. His wonderful quickness, tremendous energy, and extraordinary bodily strength combine to make his attack far more feared than is that of the lion, and I consider it probable that, in a given number, more fatal mishaps have resulted from the charge of the leopard than from that of the larger beast.

Nothing can exceed his cool, calculated acceptance of risks such as few others of the carnivora would take. Thus in Central Africa, in the early morning, I have frequently seen the spoor of leopards on the garden paths all round my small bungalow, and have even traced them upon the planking of the lower verandas. Small dogs, in country where these animals are numerous, should never be allowed to wander about after sunset. So noiseless is the prowling leopard's attack, and so rapid and business-like his subsequent proceedings, that frequently the life of the unfortunate terrier is choked from it before the victim has even time to utter a parting yelp.

More than once has every inmate of my goat-houses and fowl-runs been savagely and ruthlessly destroyed. In these cases a blind, furious lust for slaughter seems to take possession of the in-



*To face p. 188.*

LEOPARD.

vader. On gaining admission, instead of helping himself to the fattest or most tempting inmate, he sets deliberately to work mercilessly to destroy every single member of the family, nor does he hold his murderous teeth and claws until his victims lie at his feet in a lifeless heap. In natural surroundings, however, he contents himself with one victim at a time, which he secures by ambushing a game-path or water-hole. Leopards have the same weakness as lions for lapping the quickly flowing blood of newly killed animals, and, as they climb trees with cat-like ease and agility, they avail themselves of the comparative security afforded by the branches to deposit therein the remainder of their kills at a good height from the ground. On several occasions I have seen portions of the bodies of reedbuck, duiker, and other animals among the branches deposited by leopards at the end of a meal, 15 or 18 feet from the ground. These arboreal habits render the hunting of leopards, especially by "sitting up" for them, a matter of no small difficulty; for whereas terrestrial animals such as the lion are never impelled by the presence of danger to look upward, the leopard seems to realise the perils of the *machan* as keenly as any other, and, in his stealthy, silent approach, appears to advance with one eye on the carcass and the other on the surrounding branches.

They are usually solitary. Personally, I have never seen more than one leopard at a time, although pairs have not infrequently been met with. They are also very silent beasts, giving vent at

early dawn to a curious, throaty, coughing bray, something like the immature effort of an insane donkey. As a rule, the female gives birth to two or three cubs, which when young make charming pets, but as maturity is approached are better deposited in some zoological collection. One of these creatures was for some time an interesting feature of the Consular premises when I was serving many years ago in the Protectorate of British Nyasaland, and had never exhibited the smallest symptoms of ferocity until one day, being approached by one of my staff, she attacked him without warning, and his escape from possibly serious injury could only be attributed to the chain with which she was secured having become entangled in the shafts of an adjacent wheel-barrow.

Although assuredly but few of these animals are shot, except perhaps in circumstances where a raid on a poultry yard may have resulted in the failure of the prowler to find his way out again, nevertheless many are annually secured by the natives in cleverly contrived traps of several patterns. The most general in Zambezia consists of a heavy log of wood supported at one end and placed between two lines of closely driven, strong stakes. A bait is arranged in such a manner that at the moment of its disturbance the support which holds the log up is pulled away, and the heavy weight falls upon the leopard's back. Many are caught by this contrivance, and by others which are but variations of it.

The bodily strength of the leopard is, in my

opinion, greater in proportion than that of the lion. In fact, it is amazing that so slightly built a creature can perform such prodigies of strength. Instances are not few of their having scaled at a bound stockades 10 and 12 feet high, and retired by the same way with a 40-lb. goat in their mouths. As a man-eater, which, truth to tell, the leopard but rarely becomes, he has an unpleasant and most effective habit of lying in wait over a native path extended along some massive, leafy tree-trunk, and dropping suddenly from above upon his unfortunate victim. His teeth in the poor wretch's throat choke back the cry of alarm with a pressure which is never relaxed until death ensues, and it has thus not seldom happened that, owing to attacks by leopards, persons and animals have disappeared with an uncanny, noiseless suddenness which has done much to increase the universal dread and detestation in which these animals are held by the natives.

I shall close this description with a little story which, although it cannot be regarded as adding much to our knowledge of the life-history or habits of leopards, would never have been related but for the untimely exploit of one of them. It has, moreover, the unusual merit of being in all respects, with the exception of the names of its chief actors, absolutely true.

One tranquil Sabbath afternoon many years ago the small Nyasaland gunboat *Halcyon* was lazily rising and falling at her moorings to the glassy swell of the great African lake which has given its name to that prosperous British colony.

Almost everybody was ashore except the Royal Naval Reserve Commander, a man of deeply devout conviction and habit, who, devotional book in hand, paced nervously backward and forward, furtively eyeing with an expression of the strongest disapproval the dilapidated copy of a Princess's Novelette which fluttered in the hands of the elderly ex-naval quartermaster seated on the fo'c'sle head. Time passed, and that cheery, red-faced individual had almost read to the last page of his rather unsabbatarian print when his commander slowly and somewhat uneasily approached him.

"Lovely evening, Watson," he remarked. "Always seems to me one can tell Sundays from other days; doesn't it to you?"

"Can't say as 'ow it does, sir," replied the old salt, rather shortly, casting an apprehensive glance at the book the officer still bore in his hands.

"Look here, Watson," the latter resumed, though manifestly not without an effort, "wouldn't you like to hear a chapter or two of the Word read to-night? Quite take you home it would, wouldn't it?"

The old man changed his position uneasily, reflected for a moment, and said, with great conviction, "Well, no, sir, thank you all the same. The fact is, sir, I don't 'old much with Scripture readin'. It wouldn't take me 'ome, not much it wouldn't; and if it did, I don't know as I should be best pleased."

"Ah, well, never mind, Watson," said the commander, stifling a sigh, "perhaps a little later

you would like to join in a few words of prayer instead ? "

" Mr. Sheepyard, sir," said the old sailor, with great emphasis, " I've a great respect for the 'Igher Powers—always 'ad, sir. They're very good to us and all that 'ere, and wot I says is leave 'em alone. If you goes on a-prayin' to 'em and a-disturbin' of 'em every day same as wot you do, Mr. Sheepyard, *you'll rouse 'em*, that's wot you'll do, and then goodness knows wot'll 'appen. You take my tip, sir, and leave 'em alone."

The commander turned sadly upon his heel, and shaking his head good-humouredly, slowly gained his end of the ship.

But Watson will never be convinced to his dying day that the spirit of prophecy was not upon him as he spoke, for the very next morning the ill-starred commander went ashore with a shotgun, fell in with a leopard, and was so severely clawed in the encounter that finally he succumbed to his injuries.

The African Lynx occurs sparingly throughout Zambezia, subsisting upon birds of all kinds and small mammals.

He is a long-limbed, almost inelegantly built creature, much smaller than the leopard, to which he bears but a scanty resemblance. The spotting of the lynxes is very sparse and faint, but from the ears spring curious tufts of hair, by which alone his species may readily be identified apart from a somewhat dingy yellowish colour scheme.

Lynxes are very rarely seen. They frequent

the thickest of jungle during the daylight hours, and are very wary and stealthy in their movements. Perfectly at home in the branches of trees, where, in the early summer season of the year, they must create great havoc among the young birds of all kinds still occupying the parent nests, they are, nevertheless, most usually met with upon the ground.

One of these animals provided my table with a very excellent and welcome hare when I was travelling through the Barué district in 1907. The hare when discovered had only just been killed, and beyond a rather badly lacerated throat, which was still bleeding when my people recovered it, and a few body scratches, appeared to have sustained but little injury. As I had been living for over a week on tinned provisions, varied by lean antelope meat, the lynx's involuntary contribution was received almost with enthusiasm.

Lynxes are animals of but little interest from any point of view except that of the scientist, and, so far as I can see, but little if in any degree redeemed from classification as vermin.

# CHAPTER IX

## CHEETAH : HYENA : JACKAL : HUNTING DOG : SERVAL : CIVET : GENET : MUNGOOSE

CHEETAHS or Hunting Leopards are not very numerous in the Zambezi valley, occurring perhaps most plentifully between Muterara and the Lupata Gorge, where reedbuck and other small antelopes are common. I have also seen them in the Mlanje district of Portuguese East Africa, in the Barué to the south of Tete, and in the open country south of the Shupanga Forest.

At first sight you think you are looking at an ordinary leopard, but a moment's reflection removes this impression. The cheetah is not quite so long or so sinuous, while at the same time he is longer-legged and stands higher. He lacks the rich coloration of the leopard, and instead of being rosetted, his spots *are* spots, so to speak—that is to say, they are simple round dots of deep black. The cheetah possesses a small shapely head, large luminous eyes, and a further peculiarity, which distinguishes him from the ordinary leopard, is a singular thickening of the coat at the neck and shoulder, which gives him the appearance of wearing an undeveloped mane.

There is probably no member of the flesh-eating families of African game which can develop

and maintain such astounding speed as the cheetah. Where the lion, leopard, and other cats carefully drive their prey to an ambush, or stalk it, or lie in wait overhead or in concealment, the cheetah overtakes his game and kills by sheer superiority of pace. His principal fare consists as a rule of the smaller antelopes and the half-grown young of some of the larger varieties, and these, from the moment of alarm, he can run down in every case. On coming alongside his fleeing quarry, the cheetah usually endeavours to strike it a terrible blow on the croup with his forepaw, which, when going at full speed, frequently has the effect of knocking the buck completely over, whereupon the pursuer fixes his teeth in the wind-pipe, and death ensues quickly from strangulation. Should these tactics fail, however, the cheetah launches himself with a tremendous spring upon the fleeing antelope's shoulder, and maintains his position there, holding on with teeth and claws until exhaustion brings both headlong to the ground.

A very charming French gentleman who passed some years vainly endeavouring to make a living by agriculture in a somewhat remote portion of the Mozambique Company's territory, and finally died there, informed me that once, in the great slightly wooded plains to the east of Gorongoza, he saw a cheetah run down and capture an immature blue wildebeeste. From the account he gave me of what took place, as witnessed by him from beginning to end from the summit of a lofty ant-hill, I remember that there was no evidence that

the cheetah stalked his game at all. Unlike the stealthy, cat-like methods so characteristic of the leopard, the cheetah boldly emerged from some high grass on to the bare, short-grazed plain, standing at the full height of his comparatively long legs, his head well up, and his eyes fixed upon the unconscious wildebeeste, several of which were grazing quietly towards him. At that time he was at least 100 yards from the nearest. What followed was no doubt somewhat difficult to observe and afterwards to describe, being merely a lightning-like impression; but my informant told me that the cheetah simply appeared to take wings and fly through the air at a dizzy pace. The wildebeeste raised their heads, and without one moment's pause turned and galloped away as hard as they could lay legs to the ground; but inside 400 yards the end came. The cheetah literally flew over the ground, and came up to his prey apparently without effort. Feeling himself closely pressed, the young wildebeeste made a futile attempt to double, in the hope, no doubt, of baffling his pursuer; and although he gained a momentary advantage, the cheetah recovered himself in an instant, and, almost in a second as it seemed, had regained the ground he had lost. In this case he struck the fleeing antelope a lightning blow, and in the twinkling of an eye had him by the throat. My informant told me that the distance covered, although comparatively short, was one which afforded an unobstructed view of the whole incident, and showed the cheetah to be possessed of a turn of speed from which the

fleetest among the many varieties upon which he preys would seek to escape in vain.

I have only seen two or three of these animals, which, although fairly numerous in some portions of the country I have visited, are, it would seem, but rarely encountered. I have sometimes thought it possible that the infrequency with which they have been reported may connect itself with the probability of their having been mistaken for leopards. In any case, I have never shot one, and the only specimen to come into my possession did so in a singular and perhaps not uninteresting manner. I had been shooting south of the Inyamissengo branch of the Zambezi, and was in the act of resting one day after many hours of toilsome march in a portion of the district which struck me as being particularly beautiful and park-like—a fascinating alternation of thin forest and plain in which the latter appeared somewhat to predominate. Whilst thus occupied, I saw a large eagle of, I believe, the crested martial variety, which had been soaring not very far over the adjacent tree-tops, make a determined but unsuccessful swoop down at something on the edge of the bush not very far away. This manœuvre the bird repeated, then made another attempt, which seemed equally fruitless. As she came over me I shot her with a charge of S.S.G. Down she came with a broken wing, and as my people approached to recover her she got upon her back and presented so menacing and fierce an appearance, with her large hooked beak and immense, powerful talons, that she had to be

dispatched with much circumspection and a heavy stick. In the meantime, another of my people who had gone off to investigate the cause of her interest in the locality, returned in due time bearing two delightful little cheetah cubs about a fortnight old, which he had discovered in the shelter afforded by a somewhat curiously formed ant-bear hole. These, of course, were the secret of the eagle's repeated swooping; and from what I know of the habits of these birds, I have never been able to understand why she did not succeed in carrying one of them off. One of these little beasts became very tame, and was in my possession until he had arrived at quite three-quarter growth. During a somewhat prolonged absence, in which I had to leave him in other hands, he was, I fear, neglected, and one morning it was found that he had made his way back to the bush, for he was never seen again. Personally, I look upon the cheetah as being a fine, bold, sporting type of animal, and although he may lack a good deal of the interest which is lavished—for inadequate reasons, as I think—upon such better-known forms as the lion and the leopard, I am far from sure that he is not infinitely worthier of it, and that if he were better known he would be much more highly esteemed.

Zambezia possesses only one Hyena—namely, the larger or spotted variety. It is the fashion, I believe, to refer to the hyena in terms of opprobrium and disgust, and to look upon him with that virtuous loathing which is rightly felt for anything of a furtive, underhand, treacherous, or

unprincipled character, or for the convicted accessary after the fact. There is no sort of denying that the hyena is all these things and many more; but I must own that after many months, or it may be years, spent in the midst of the uninteresting and unedifying life of East African coast ports, one looks forward on returning to the wilds to the first call at nightfall of this thieving prowler. If one should be accompanied by a fellow-hunter, a pleased nod is exchanged as the first siren-like howl falls upon the ear, and with a smile of satisfaction one or other ejaculates, "Good old Fisi!"[1] or words to that effect. The usual cry of the spotted hyena—for he has at his command, if he care to employ them, a weird and extensive gamut of strange sounds—is so eerie, so mournful, and yet so intensely reminiscent of the unfrequented African forest and plain, that few who have once heard it there could be oblivious of the pleasant sporting memories it must awaken.

The presence of the hyena, although not an invariable, is a fairly good indication of the presence of game. Not that he kills it himself as a rule, although at times, when pressed by hunger, he will even go so far as that; but on the whole he prefers to let bolder animals provide the meal for which he is quite willing to await his turn. Still, in times of scarcity, there is little indeed that comes amiss to the powerful jaws of the spotted hyena.

I do not know to what other animal, if any, the hyena of Zambezia can be compared—he

[1] A Bantu word signifying hyena.

stands so singularly apart in his odd ungainliness from the other families of the flesh-eaters, partly by reason of the general detestation in which he is held, and partly by his extraordinary and, it must be confessed, unlovely appearance. His colour varies considerably, but is as a rule of a dirty, yellowish grey, the body covered with brownish spots. At the shoulder the spotted hyena stands probably 3 feet high, sloping abruptly down to the root of his short, skimpy tail. He thus looks disproportionately heavy in the forepart of his structure, an appearance which his massive head goes far to accentuate. In length this animal is probably between 5 and 6 feet; he is thus a heavy, powerful beast, and personally I am far from sharing the generally accepted supposition of his invariable cowardice. A curious gland which appears beneath the anus gave rise among the ancients to the quaint supposition that the hyena was hermaphrodite.

I have for many years entertained, for what appear to me to be good and sufficient reasons, the belief that the spiritless timidity which these animals are so well known to assume is a deliberately adopted pose. Valour to the hyena would be of but little use, since his place in the order of African events is that of the scavenger, the cleaner-up—the individual, in a word, who does the necessary tidying after the confusion engendered by the feasts of the larger flesh-eaters. He need thus only wait for his opportunity, and is singularly well equipped to bear with equanimity the painful vacuum of which Nature is said

to have such a horror. Still, he does not always do so, as the following incident will show. In September 1904, I was proceeding through an out-of-the-way portion of Portuguese East Africa on an official tour when, early in the morning, which was cloudy and dull, a reedbuck closely pursued by a hyena dashed across the path we were following, and was pulled down about half a mile farther on. Some of my people said that there were two hyenas in pursuit of the buck, but I only saw one; in any event, we promptly took up the spoor and came up in about twenty minutes to the buck newly killed. It had already suffered some slight damage from the hyena's teeth, but the brute slunk away as we approached, so we were unable to get a shot at him. We were, however, very glad of the reedbuck meat, of which we promptly took possession. We found, on examination, that one of her legs was injured, a circumstance which may have tempted the hyena out of his usual custom in giving chase to her.

In some of the larger Zambezian settlements hyenas are very numerous at night; here on occasion they can be seen slinking about in the shadows in their search for garbage and offal of all kinds. Stories are told of their snatching goats, kids, lambs, and even young children at times almost from within the shelter of the huts, and instances are numerous of their having badly bitten sleeping natives and others benighted by the wayside, tearing from them substantial pieces of flesh. One native woman whom I have seen at Vicente presented an appalling spectacle as the

Hyenas are common in the suburbs of Cairo and Jerusalem!

result of such an attack, the whole of the lower portion of her face, including the jaw, having been torn from her whilst she slept.

Encamped in hyena-infested portions of the country, I have frequently been disturbed early in the night by a chorus of yells from my followers, accompanied by a volley of burning brands from the fire, discharged at some prowling form discovered lurking with lawless intent in the vicinity of the carriers' quarters. If shooting have been in progress, and the camp one of several days' standing, the greatest care and pains must be taken to see that all skins, heads, masks, and meat are deposited at nightfall high up a tree to keep it out of danger of these lurking pests, to which scarcely anything that has been in contact with animal matter is unwelcome. Even articles of thick tanned leather are readily masticated, as the disappearance, on one occasion, of a solidly made binocular case, which had been carelessly left under my tent-fly, taught me. A friend of mine who was hunting with ponies some years ago in similar country to that described in this paragraph lost a pair of leather saddle-bags in the same way, and was obliged to shoot one of his mounts through the poor beast sustaining fatal injury from the teeth of a hyena. Ordinary thick antelope bones are masticated and swallowed with the ease with which mankind disposes of a biscuit: it has even been said, so tremendous is the strength of their capacious jaws, that they have been known to crush the thigh-bone of an elephant to get at the marrow within. Here is a feat which

I should regard as little if at all easier than the fracture of a steel telegraph pole. In any case, I have known this animal bite in two the largest bone a buffalo contains, namely, that of the thigh, the whole of which, ends and all, it swallowed in the course of its meal.

Hyenas may often be seen late in the evening as they leave their lairs in search of food. They are lonely beasts, and, although many may congregate at a kill, or at some well-accustomed centre where food is known to occur, they do not belong to anything in the nature of a family or other assemblage. At break of day, therefore, each one will take his solitary way back to his daily hiding-place. The females produce two or three whelps at a time, which are said to be supported during their later period of helplessness by the food which their mother, on arrival in the morning from some over-night feast, purposely vomits for their benefit.

In native folk-lore, and stories relative to witch-craft, the greatest faith is felt for cases in which persons accused of the detested offences falling within this category receive the power to transform themselves into hyenas and disinter and devour, whilst so disguised, the bodies of the newly buried dead. This, of course, arises from occasional acts of the most degraded cannibalism, of which, as a form of madness, I am satisfied that at times certain natives are unquestionably guilty. Indeed, years ago, when I was vested with certain magisterial powers, I ascertained, from the details of the evidence of cases which came before me,

that this appalling custom beyond all doubt still survived. It is implicitly believed among certain tribes whose country borders the Zambezi that these corpse-devouring wizards hold periodical meetings or sabbaths, when they associate together in the forms of hyenas assumed for the purpose; it is further believed that they can, if they should so desire, render themselves invisible. The act of disinterment is said to be effected by the issue of a summons to the dead man couched in the form of an incantation, and in language known to and used by the wizards only whilst appearing in animal form. This summons the newly sepulchred dead cannot resist. The corpse is compelled, conjured by the name of childhood before puberty,[1] to leave its tomb and appear at the dreadful trysting-place, whereupon the assembled hyena-men fall upon and devour it, whilst night-jars and the great eagle-owl watch without. These superstitions are implicitly believed over a great portion of the Zambezi valley, and it will therefore be readily imagined that to native ears the curious, uncanny bass-falsetto howl of the questing hyena is a sound pregnant with awful significance.

The only occasion upon which I fancy one of these animals had any design upon my tent was one night in the Barué where I made a long and deeply interesting journey in 1907. Sleeping as I almost invariably do with my tent door open, and a heavy service revolver upon the ground

[1] At puberty Zambezian natives receive a new name which they bear throughout life.

beside me, I awoke at some time in the night, and after a pull at my water-bottle, found my attention drawn to two large and very luminous eyes apparently gazing into the tent from a distance of some 10 or 12 feet from the door. I fired promptly, and missed the beast, which I ascertained by the foot-marks the following morning to have been a large hyena. No sooner had I made the discovery than I also found that a fine sable antelope head which had been carelessly placed in an adjacent tree overnight had fallen and been taken doubtless by my reconnoitring friend. Its remains were discovered during the day with little but the horns left whereby to identify it.

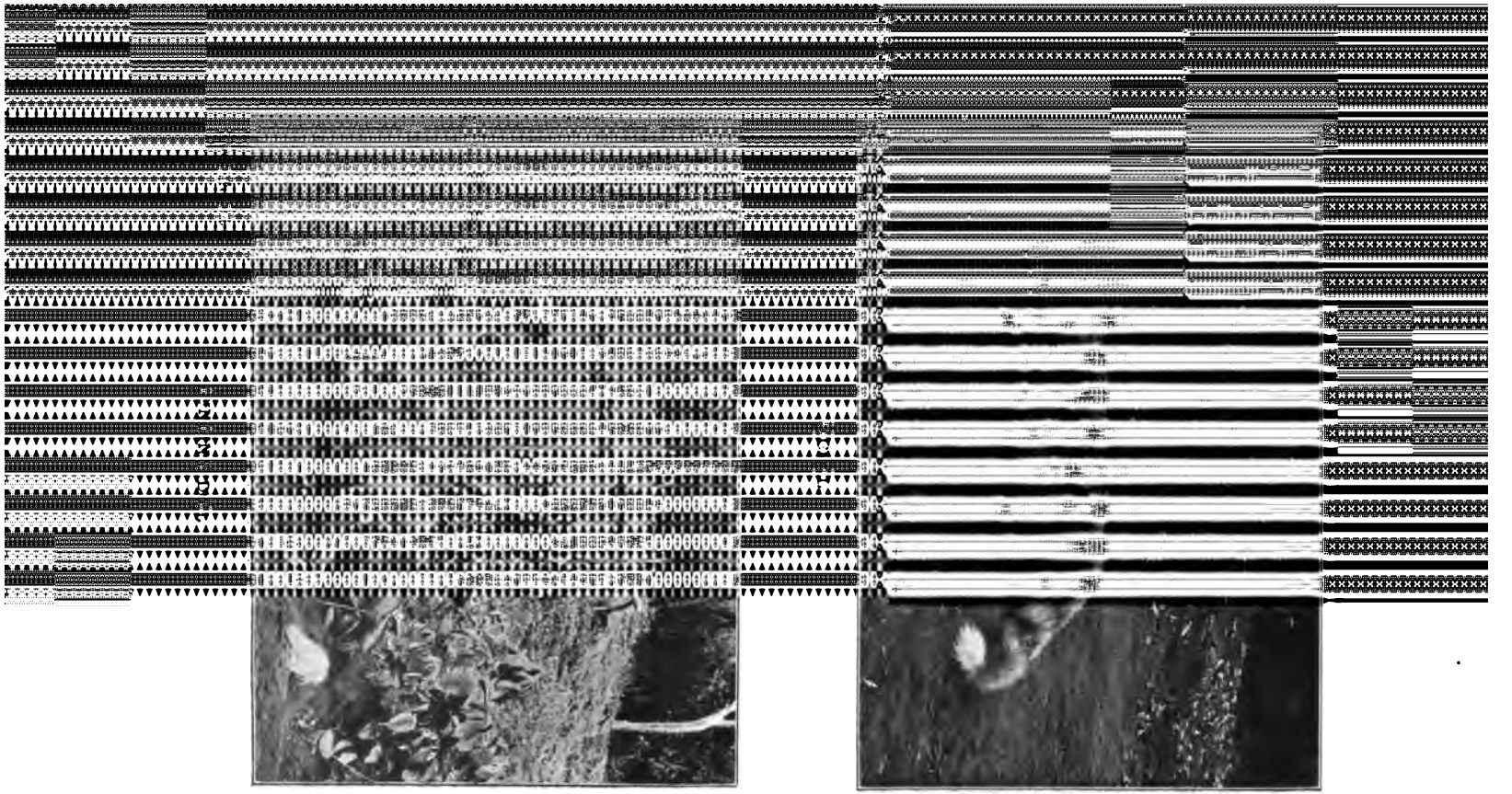
The Side-striped Jackal is heard nightly throughout the Zambezi valley, and although there is no reason why the smaller black-backed variety should not occur, I have nevertheless neither seen nor heard of him. I have possessed two or three of these small animals, which have grown extraordinarily tame when reared from a tender age. One of these, curiously enough, became apparently greatly attached to a fox-terrier which belonged to me years ago at Quelimane, and this oddly assorted couple would accompany each other all over the Consular premises. The tame jackal is a not ungentle creature of various shades of reddish brown, possessed of a bushy, white-tipped tail, and is generally of a somewhat foxy appearance. His distinctive name is derived from the black and white stripes which run laterally along the flanks, and are much more distinct in some animals than in others.

The jackal in the wild state is often a degraded animal, subsisting upon the refuse in search of which he is a nightly intruder into villages and small towns, consorting, at a respectful distance, with hyenas and, after a kill and at a still more respectful distance, with even the greater flesh-eaters themselves. When thrown in the wilds upon their own resources, jackals prey largely upon game birds, their eggs and young, insects, including locusts, of which they are extremely fond, and all sorts of small and immature animals. To persons possessed of a hen-roost, they are a serious nuisance, fowls and eggs disappearing in a manner as mysterious as exasperating. If they should be caught inside the poultry-run or hen-house, jackals turn very nasty, and one of my servants at Blantyre, years ago, sustained a most unpleasant bite from one of these animals. They are, of course, nocturnal, and soon after sunset their curious, plaintive cry of "bwé-bwé" can be heard on all sides as they issue forth from their lairs.

The old-fashioned story of the jackal being found in constant attendance upon the lion is certainly not borne out by the observations of latter-day hunters and observers, who have found the best of reasons for believing that in lean times both the lion and the leopard are by no means averse from a meal of jackal meat should no other and more desirable means of sustenance present itself. It is, of course, painful to be compelled to remove illusions hallowed by the bright halo of many years of firm belief, but it is a duty which often presents itself in describing Africa, and many

things besides the wild beasts which that astonishing country contains.

Let us now consider for a while that abomination—that blot upon the many interesting wild things for which Zambezia provides a home—the murderous Hunting Dog. Twice only have I seen these animals, and on the second occasion, in the middle of the little-frequented Barué region in 1907, I frankly thought for a moment that I was not safe from them. I was marching one afternoon through the high, forested tableland, of which so much of this beautiful district consists, when I came right upon about sixteen hunting dogs which had been lying asleep probably after one of their unholy feasts. I suddenly became aware of a chorus of curious sounds, barks yet not barks, as the pack leaped to its feet and stood for a moment regarding me. It seemed at the first glance that I was face to face with a nightmare pack of large, powerful hounds between 2 and 3 feet high, their bodies blotched all over black, white, and reddish brown, and there for several seconds we stood regarding each other. My gun-bearers were clearly alarmed, and I don't think it would have taken much in the way of a demonstration on the part of the dogs to have sent them shinning up the nearest tree. However, I reached for my double ·303, and as they unwillingly turned to go, I shot one old dog and severely wounded a second. This hastened their pace for a while, but after covering about 80 or 100 yards they all stopped, and, much to my astonishment, turned in their tracks for another



look at me, some of the rearmost animals balancing themselves on their hind legs to get a better view. My startled dusky companions, evidently the victims of their fears, now protested that they were upon the point of returning to attack us, so I gave them two more barrels, which I know did some, though I never knew how much, damage, as on this they went off. The dog I shot on this occasion was a large and, judging by his teeth and other indications, somewhat elderly beast. He was, however, a fine sturdy animal weighing, so far as I could judge, not less than 60 or 70 lbs. Not unlike a small hyena in structure, his shoulder height fell away to the tail, the head being broad and disproportionately short.

As I have stated, the demeanour of these animals was very bold; they seemed, indeed, in nowise inclined to give ground, but I suppose this was due to the fact that in such a remote portion of the country they were unused to human intrusion and practically undisturbed—certainly their behaviour was quite unlike that of another pack which I met some time before in Shupanga Forest. These, consisting of ten or a dozen individuals, took instantly to flight, not even giving me sufficient time to get in a shot at them. Although they are commonly slow to retreat before man, I have never yet heard of human beings suffering attack by these animals, which, if this were their habit, would probably become a more serious and formidable scourge than any of the existing man-eating species. Woe would indeed betide the solitary forest wayfarer who

should form the object of pursuit of these heavy, powerful creatures, whose method is one from which escape, except by means of a providentially placed tree, would be absolutely impossible.

There are few, if any, influences capable of ridding wide areas of their game beasts with the astonishing rapidity of the hunting dog. He is practically tireless, extremely speedy, possesses an appalling appetite, and eats nothing but freshly killed meat. Herein lie the chief thorns of the scourge he is. Almost if not all the antelopes fall victims to him, and it is generally admitted that from the moment the pack lay themselves out on the spoor of a coveted animal its fate is sealed. It is believed that the only families, apart from the lion, more or less exempt from the hunting dog's attack are those of the buffalo and zebra. Leopards take to the trees on their approach without any unnecessary waste of time, and it is probable that even the lion would hardly be spared if he were found to possess any bodily infirmity calculated to impair his powers of defence. Their method of hunting, moreover, is one which renders them practically irresistible. It should be remembered that the average African game beast, though speedy over short distances, is not accustomed, in the ordinary course of events, to keep on his top pace for long periods of time. After a burst of a few hundred yards at the outside he will slacken down to a trot or a walk, and probably stop and listen for the danger which has startled him. On the great plains, as I myself have ex-

perienced, by cantering quietly along after the game on a serviceable pony, not pushing your beast at all, it will be found that before any great distance has been covered, you are not very far behind. These are precisely the tactics of the hunting dog. After a while, as his distressed and fleeing quarry grows breathless and exhausted, the pack closes up, and then, in turn, its component members make a dash forward, sprinting up to the side of the wretched, panting antelope. They now, one by one, leap up at the fleeing wild thing, inflicting with their teeth the most appalling wounds and gashes, and tearing out great mouthfuls of flesh and entrails, until at length agony, exhaustion, and loss of blood tell, and the poor beast falls and is quickly disposed of. The numbers of antelopes killed in a given time by hunting dogs must be enormous, since their untiringly active life renders necessary an immense amount of animal food.

Hunting dogs travel immense distances, and although quite systematic in their methods, if here to-day may be 80 or 40 miles away to-morrow, and thus it is that they are so seldom seen twice in the same district except after the lapse of some considerable time. Still their stay is usually quite long enough to scatter and demoralise the game over a wide area, and to so shatter the nerves of the grass-eating animals as, at times, to drive them forth and to change completely the aspect of a normally game-haunted region.

Although I have never had an opportunity of

trying such an experiment, it is nevertheless stated on excellent authority that hunting dogs, if captured young, grow extraordinarily tame. Their young, which are believed to appear three or four to the litter, are produced in regularly constructed kennels, one of which I have seen. These are hollowed out underground, an ant-bear hole being selected for the beginning, and warmly lined with grasses and leaves. The pups remain several months in these retreats, their mothers providing for their necessities in much the same unlovely fashion as the mother hyena.

I suppose they have few enemies, except man, capable of making any impression on their numbers, which, from all accounts, though slowly, tend gradually to diminish. It will be an excellent day for African game and its preservation when means can be devised to give practical effect to some well-thought-out scheme for this unnecessary creature's complete extermination.

The chief remaining carnivorous families to be enumerated are the servals, civets, genets, and mungooses.

The Serval is another leopard-like animal to some slight extent, spotted after a curious fashion, the simple markings displaying a curious tendency to run into one another, and almost, here and there, to form stripes. He is, moreover, although much smaller than the leopard in body, endowed with longer legs and, proportionately, a much shorter tail. The general colouring and appearance of these animals are not unsuggestive of the cheetah, whilst, on the other hand, the tufted

ears are strikingly characteristic and reminiscent of the lynxes; but, apart from the evil reputation which they share with others of the smaller cats of being incurable hen-roost robbers, servals are, nevertheless, bold and successful hunters, and run down their prey in the same sporting manner as that which distinguishes the methods of the hunting leopard. Although essentially night prowlers, I have nevertheless seen them in pursuit of guinea-fowls and francolin up to a late hour of the morning. I have also seen them in the branches of trees, which their cat-like claws enable them to climb with great ease.

Sitting resting one day in the interior of Quelimane district whilst the midday meal was being prepared, my chair and table set out on a widish road bordered by high grass and bushes, and surrounded by a silent cohort of tired carriers, a distressed and evidently injured guinea-fowl suddenly rushed out of the grass cover, closely pursued by a beautiful serval. They disclosed themselves at a distance of not more than 20 feet from where we were all reposing. There was a pause for a fraction of a second, and then the serval made good his escape. Not so the guinea-fowl, however, which was promptly run down by some of the more active among my people, and soon afterwards became my property by means of the usual method of exchange. I do not know how far my impressions formed from the momentary glimpse which I caught of this animal justified the estimate, but the serval I then saw—certainly a larger animal than any I had up to that time

secured—was fully 4 feet in length, and had a shoulder height of quite 8 feet.

Servals are very untractable animals. While young they are pretty and interesting, and like most wild creatures display no little appreciation of care and kind treatment; but as they reach maturity, the inborn savageness of their disposition would appear to remove all grateful recollections, and nothing whatsoever can now be done except to place them under permanent restraint.

Civets are also numerous. In colour of a rather dull, tawny grey, sprinkled over with simple spots, they are handsome little animals, and when the mane of long black hairs which runs down the dorsal line is erected in anger they present quite a formidable appearance. Natives prize their skins for purposes of an ornamental character, but would seem, so far as I am aware, to place no value at all upon the scent glands found at the base of the tail.

The habits of civets are strikingly similar to those of the servals, except that I fancy they are powerless to climb trees. At all events I have never seen one in the branches, and doubt very much if the character of their claws would enable them to reach that elevation. The civet follows the singular practice of resorting to the same place day after day for the purpose of depositing its dung, which may at times be seen in large piles in the native paths nightly frequented by it in pursuit of rats, mice, and other small animals and insects.

On one occasion I saw a small civet captured and carried off bodily in the talons of a large eagle of whose identity I was at the time uncertain, but which must have been a crested martial eagle similar to the one already mentioned in my remarks relative to the cheetah. The bird paid not the smallest attention to my tent or to my native carriers and others grouped about. I first noticed it hovering in wide circles over the camp well out of gun-shot, and some time afterwards marked it down to the branches of a large feathery albizzia tree not more than 150 yards away, where the whitish hue of the breast feathers rendered it rather a tempting mark for a small-bore rifle bullet. I resisted the murderous impulse, however, and was lazily watching the great bird through my field-glasses when it suddenly leaped from its perch and darted through the air right past me to a piece of bare ground some little distance in rear of the camp. What took place there I was not able to see, but in a few seconds the eagle rose from the ground bearing something fairly bulky which still appeared slightly to writhe in the powerful talons, and which I made out with the aid of my glasses to be a small civet—indeed the animal's spots and tail rendered him unmistakable. It is very curious how oblivious of their surroundings certain great birds of prey become when they perceive good cheer at hand. I have had several opportunities of observing this peculiarity, which I will deal with in a later chapter.

I possess rather an uncommon motor rug, which

has frequently attracted the admiring attention of friends, and is made of some sixty skins of the Blotched Genet, another small and very pretty cat found throughout the Mozambique Province. It is said to be nearly related to the civets, but has no glandular pouch for the perfume borne by the latter, which was at one time a not unimportant article of commerce. The genets, or rather the representatives of that attractive family found in the district of Zambezia, are handsome little beasts of a whitey-grey colour, their soft thick coat covered with spots—or perhaps more correctly blotches—of a bright umber brown. They grow very tame and make charming pets, although, curiously enough, one rarely sees them in a state of domestication.

As a rule blotched genets are wood-dwellers, making their squirrel-like homes in holes in the trunks and branches of great forest trees. They follow a mode of life, however, which bears no resemblance to that of the harmless squirrel, being, I believe, exclusively carnivorous, and causing considerable havoc among game birds, to say nothing of the poultry and eggs of the remotely established farmer.

There are several other small cats scattered about the Province, whose skins are usually obtained by trapping. I have, therefore, found it advantageous and most interesting to provide when travelling in the interior two or three strong steel traps. These, set with a little meat and laid at the sides of the native paths, a couple of hundred yards or so from the camp, have not

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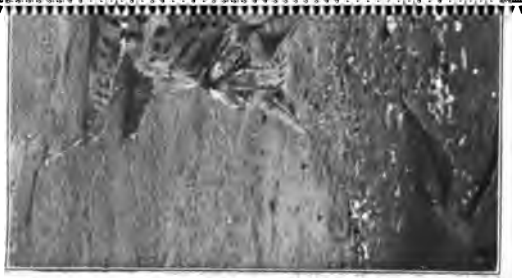

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seldom yielded a good return in skins of various small beasts which otherwise one would seldom or never see.

I believe there are altogether in the Portuguese East African Province some four or five different varieties of the Mungoose. It is an interesting, amusing, and useful little beast, and the families mentioned comprise the slender, grizzled, banded, white-tailed, and Meller's.

These small creatures are frequently tamed, even by the natives, and are possessed of the appreciable quality of ridding one's abode of cockroaches, snakes, and many other disagreeable forms of life so common to dwellers in tropical Africa. Whilst some of the varieties of mungoose—notably the slender—are more or less solitary in their habits, others are happily gregarious, and their cheery, bustling family parties may often be seen in the forest hurrying to and fro in search of food, and uttering their curious bird-like chirp which in Zanzibar has obtained for them the native name of "M'chiru," which strongly resembles it.

I have possessed many of these animals, which become so tame that they will dwell in one's pocket or camp up one's sleeve, poking out with disconcerting suddenness from time to time an inquisitive, beady-eyed little head. They devour white ants, centipedes, and scorpions, whilst locusts have no more deadly enemy, and snakes are said to pay a heavy toll. I do not think any animal of my acquaintance is endowed with such vast, such unconquerable inquisitive-

ness as the mungoose. It pries into everything, sometimes with disastrous results. As an instance of this, I was travelling on one occasion between Zanzibar and Mozambique, and one of my lady fellow-passengers had purchased a tame mungoose at the former place. It used to run about the decks and poke its curious little nose wherever it could. One hot afternoon—it happened to be on a day which its mistress had selected for the display of quite her loveliest and most expensive costume—the mungoose discovered that by carefuly choosing its time it could run in and out of the steering-chain pipes which skirted the deck, and which are necessarily about half an inch thick in the blackest and most forbidding of engine oils—but I need not continue the narration further, nor harrow the feelings of my lady readers. I will only add that, as the result of the painful sequel, this particular mungoose mysteriously disappeared, and was seen no more on board.

The mungoose—whatever may be this animal's correct plural designation—is extremely fond of eggs, and therefore a sad source of tribulation unless it can be kept out of the poultry run, and few poultry runs there assuredly are capable of excluding such a weasel-shaped, sinuous busybody.

Its appearance is so well known as to render a description in detail almost unnecessary, but for those who have not yet made this animal's acquaintance it may be described as a somewhat stoat-shaped creature of a pale brown colour,

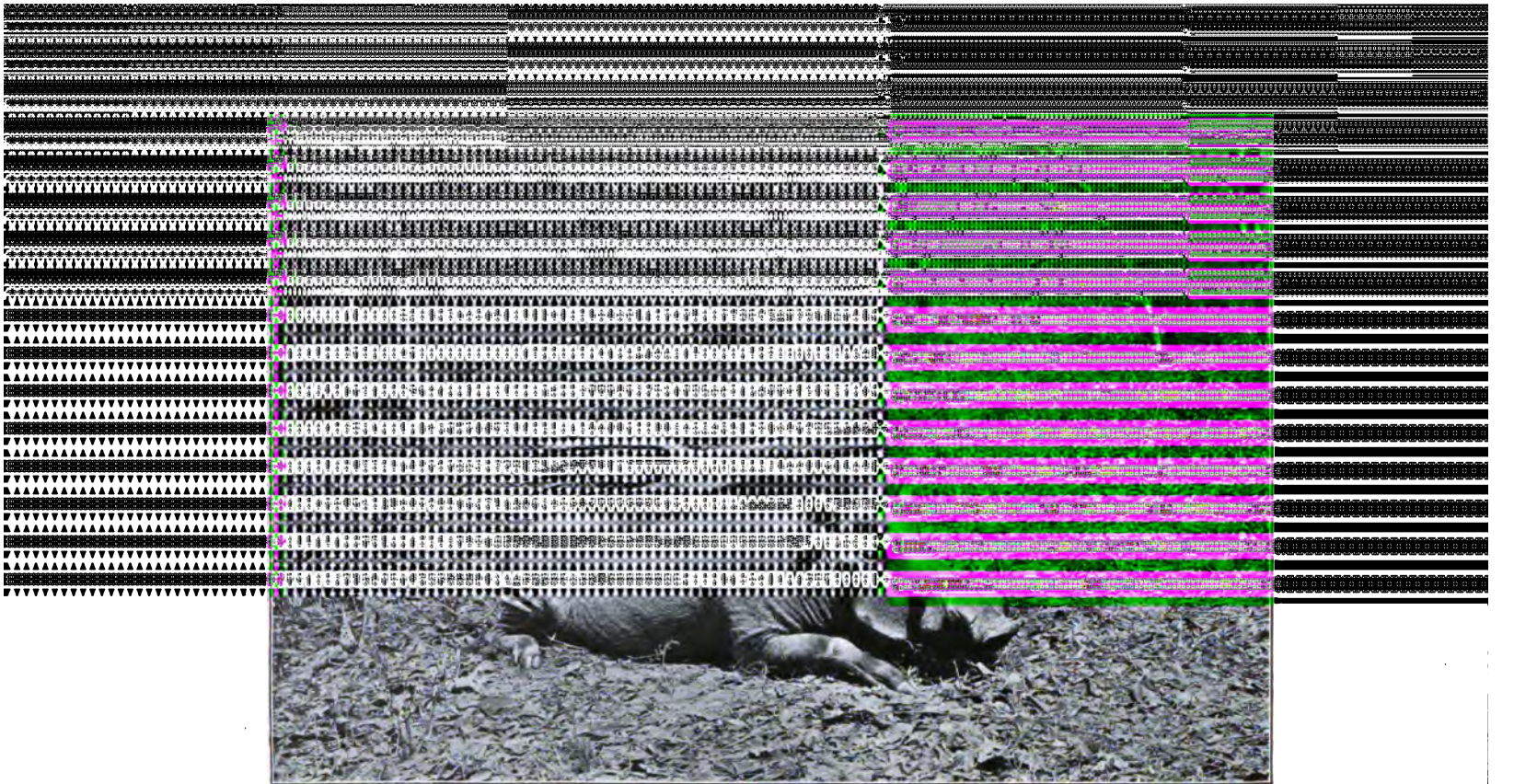
possessed of a long, hairy tail, short legs, and abbreviated, inquisitive-looking ears. They vary somewhat in size according to family, but 15 inches might perhaps prove a fair average length. The coat, which is somewhat long, is rather harsh and bristly, banded or striped as the case may be; but taken altogether the mungoose impresses one first of all by his air of imperturbable good humour, and, secondly, by his unceasing restlessness. I feel sure they do a great deal of good in their perpetual warfare against vermin, and regard them as quite as important an adjunct to the African dwelling-house as the domestic cat to that of more temperate climes, if not more so. The latter either grows plethoric, and disinclined to exertion, as the result of repose and over-feeding, or else, smitten with a longing for adventure not usually associated with his eminently respectable appearance, he makes excursions into the bush of longer and longer duration until at length he throws in his lot altogether with uncivilised brethren, and his home knows him no more.

## CHAPTER X

THE PIGS: PORCUPINE: ANT-BEAR: HONEY BADGER: OTTERS: HARES: ROCK RABBIT: GIANT RAT: SCALY ANT-EATER

THE two wild pigs which make their home on the banks of the River Zambezi are the same in all respects as those found throughout South and East Central Africa, namely, the large, disproportionately-headed, warthog, and the comparatively gaily-marked, guinea-pig-like bushpig of the somewhat higher elevations.

Warthogs are almost invariably found in families, and have an extremely happy, easy-going faculty which enables them to make themselves quite at home in practically any part of the country, high or low, forest or plain. They are most entertaining animals to watch, and, if proper caution be exercised, are usually far too much engrossed in the preoccupations of the moment to mark the presence of a hostile influence. In the cultivated areas, especially where roots are grown and ground-nuts planted, warthogs are a terrible pest. They will travel daily from their sleeping-places and cover many miles to reach some well-known garden, where they plough up the ground and create amazing havoc. They love especially loose, sandy, friable soil,



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WARTHOG..

wherein they root with their snouts for tubers and other subterranean food, but I have quite as often found them in marshy swamps, apparently equally contented with these damp surroundings, which enable them to take a daily mud-bath, of which they are passionately fond. As noon approaches, if undisturbed and well fed, they will make for some conveniently situated sand-pit, either shaded or unshaded, where they will roll, afterwards resting until the cool of the evening. On several occasions I have come upon large families lying fully extended, or with legs in the air, in the surroundings described, exposed to the full force of the sun's rays. In the late afternoon they seek for food again, and drink shortly before sunset.

In appearance the warthog, as will be seen from the accompanying illustration, is almost the last word of picturesque ugliness. I do not know what a well-grown boar may weigh, but consider it probable that when cleaned he may turn the scale at 180 lbs. The head, compared with the rest of the body, is enormous, and much of its curious uncouthness is due to the presence of the four large warts to which it owes its name. Of these disfiguring excrescences, the larger ones, placed below the eyes, would almost seem to be designed as a protection for those organs, a purpose for which the two remaining warts, placed slightly above the corners of the mouth, would appear to be of little, if any, use. There is hardly anything in the way of hair or bristles, especially on the persons of the boars. Along the dorsal

line runs a scraggy mane of long bristles which, with the short, skimpy, tufted tail, is stiffly erected in moments of excitement or alarm. But, after his warts, the most singular characteristic of this curious pig is his four large tusks. The lower, or, as it is sometimes called, the cutting tusk, is, of course, much the smaller of the two, the best pair in my possession measuring just under 5 inches; but the upper tusks are so long and heavy as to give him the appearance of wearing defences which do not belong to him. These often reach a measurement of 9 or 10 inches, and at times, I believe, considerably more, and their effect, viewed at close quarters, confers upon the wearer somewhat of the appearance of some misshapen, perky stage beast seen in a pantomime, and wearing an immense ivory moustache sedulously trained up at the ends as though by the aid of a German *Schnurrbart-binde*.

Nothing could be more amusing than a family of warthogs as, lying at their ease in a sand-pit or mud-hole, they suddenly detect the presence of danger. As I have stated, the party is a family one, and may consist of one or both parents and any number of piglings from three to eight or ten, consisting, in the latter case, of two different litters. At the first alarm, haste to gain their feet is so great that a second or two passes before this position is reached—a delay quite long enough to entail serious consequences in the case of attack by a leopard or other flesh-eating prowler. After a moment spent in scrutinising the surroundings, whilst they stand with mane

and tail erected stiffly, Monsieur gives a short, impatient grunt which is echoed by Madame, when, unless they should now be reassured, they trot quickly away in single file, led by the parents, the members of the family following strictly in order of primogeniture and, consequently, of size.

Adult warthogs, especially males, are very tough beasts to kill, and at times make good their escape after having sustained injuries which would have brought most other animals promptly to bag. If wounded and overtaken, they charge with great quickness and courage, and, although I never heard of a serious mishap, their tusks enable them at times to inflict severe gashes.

On one occasion I had wounded a large boar in East Luabo with which, after a long chase, I had succeeded in coming up. He promptly turned upon me and charged with a perfect cyclone of shrill, excited grunts, and, on my avoiding him, did the like to my gun-bearer. So quick and pertinacious were his movements that several seconds elapsed before I was enabled to get in a second and final shot. On another occasion some friends of mine in similar circumstances directed one of their natives to run in and finish a warthog with a spear, when the animal leaped to its feet and inflicted upon his naked leg a gash which laid it open to the bone.

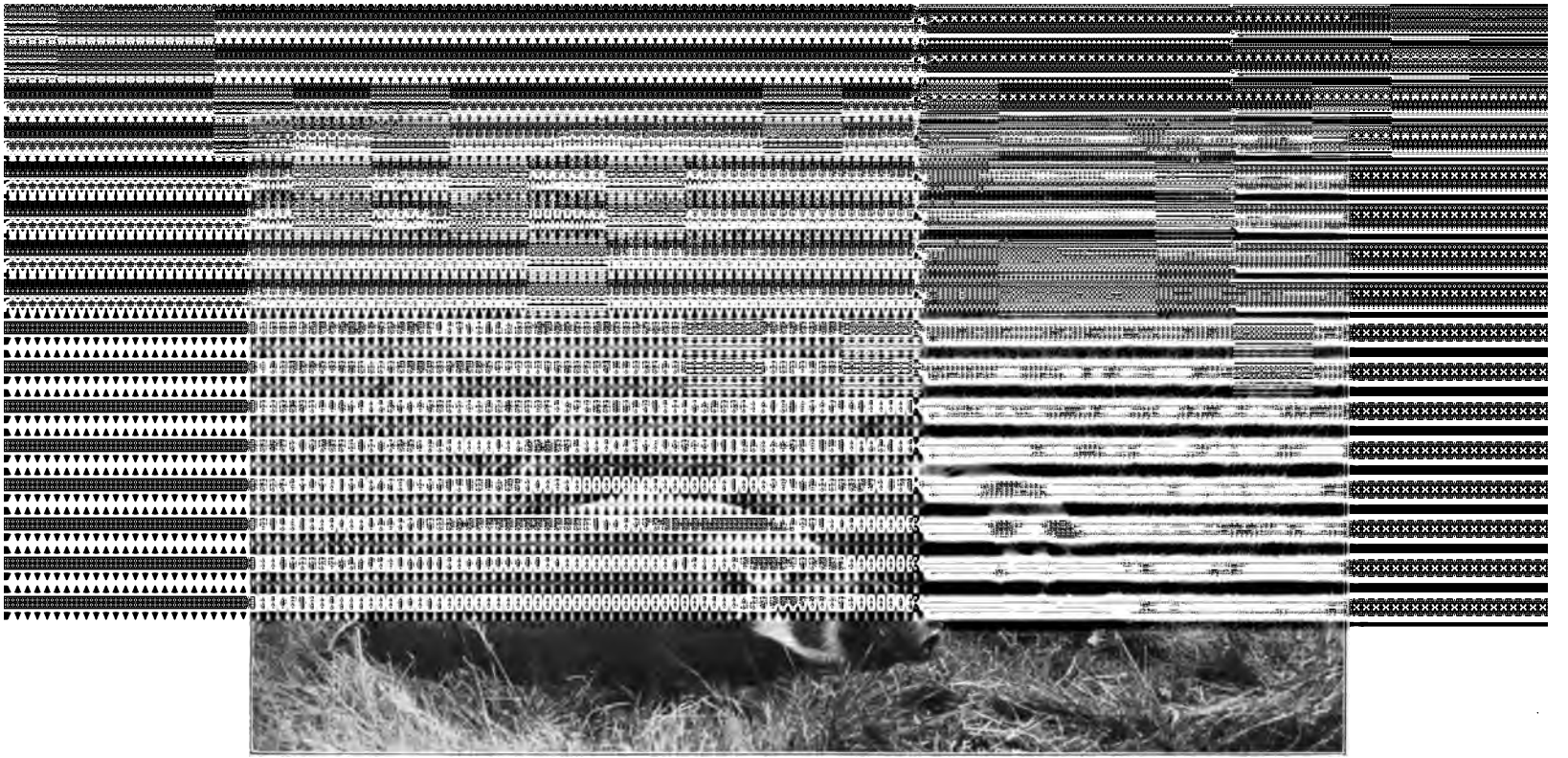
The female possesses neither the size, length of tusks, nor spirit of the male, except she have her young at hand, when she becomes endowed with the most reckless courage, and has been known, in their defence, to charge and put to flight animals

which in other circumstances she would not have faced for a moment. The young commence to follow the parents almost immediately after birth, and whilst still quite small develop an activity which renders their capture a matter of no small difficulty. They grow extraordinarily tame, and whilst young their ungainly antics and gambols are most amusing.

Although possessed of but little fat, a leg of warthog is a dish by no means to be despised, the piglings furnishing one for which an epicure would or should go far.

Bushpigs inhabit, for the most part, the higher levels, although by no means uncommon on the lower plains. I have used in connection with this animal the comparison of the guinea-pig, and if perhaps not quite an exact one, there is still to my mind something of a resemblance. If, therefore, my reader should be prepared to give his imagination a small modicum of rein, he might picture to himself an immense, reddish-brown guinea-pig marked with rather long yellow, grey and white hair, and provided with quite a heavy white collar. The head is by no means disproportionate as in the case of the warthog, and the tusks are insignificant.

Unlike the warthog, bushpigs feed chiefly by night, and although they may occasionally be seen grubbing for grass roots in the early morning, they never abandon themselves in mud-holes and sand-pits to the gaze of their enemies in the frank, careless manner of the former. During the day they retreat into thick bush, and do not leave



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BUSHPIGS.

their cover again until nightfall, when they wreak terrible damage upon cultivated gardens, especially those containing sweet potatoes, ground nuts, and cassava.

Both these species of pig suffer much from the attacks of lions and leopards, and there is no doubt are a very favourite food for both these cats.

I have already given my views upon the excellence of the flesh of the warthog, but most of those whose experience is similar to my own will agree with me that, in comparison to that of the tender succulent bushpig, it is, without question, as water unto wine.

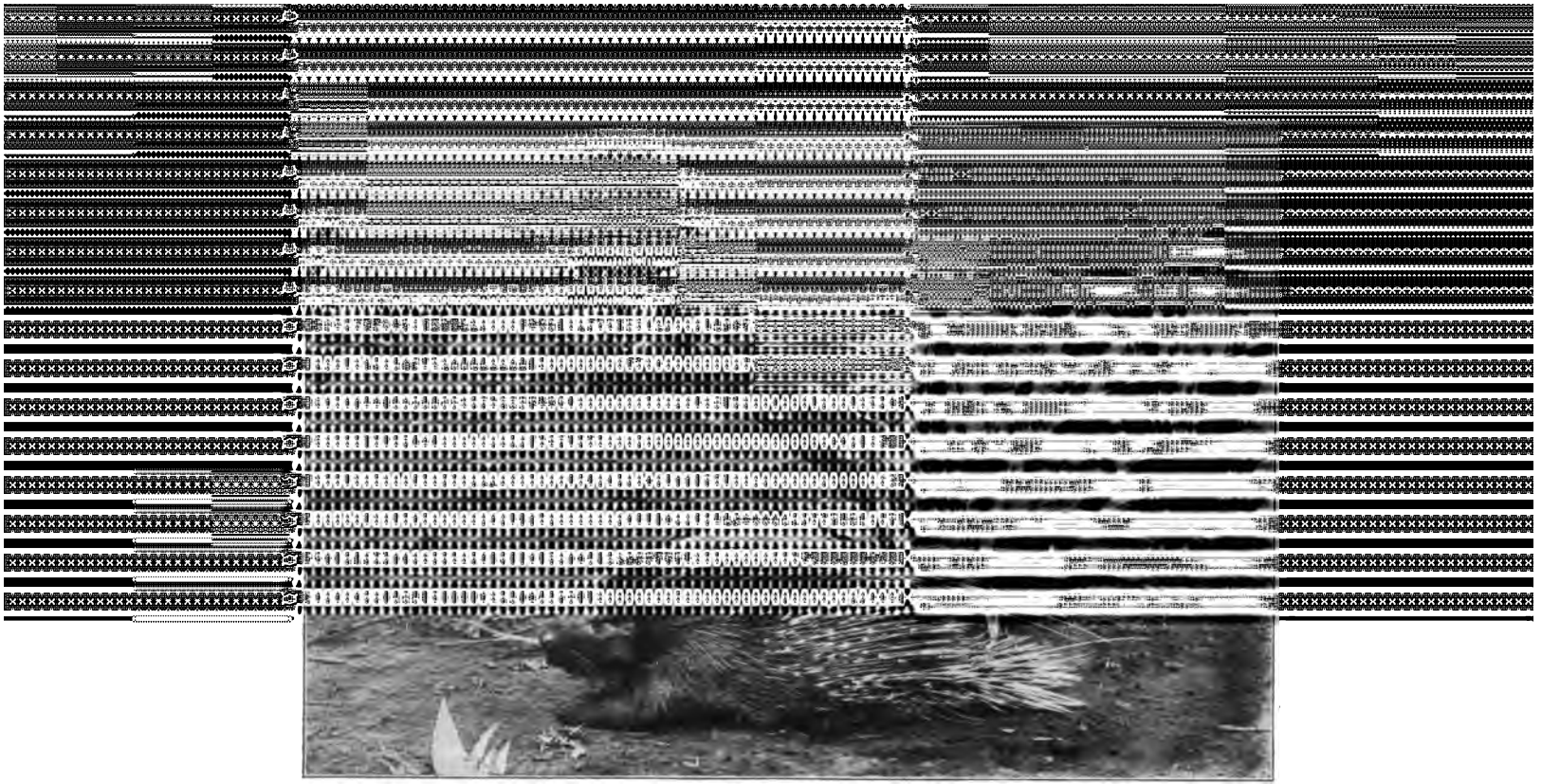
I am informed that some few years ago a new form of bushpig was suddenly identified and named after its doubtless gratified discoverer, as the difference between this interesting animal and the previously known form was regarded as of immense importance. I may, of course, have been misinformed, but I fancy it consisted principally in the proud possession of a hollow incisor tooth; but whatever it may have been it was looked upon at the time as a discovery far transcending Mr. Pickwick's long-debated theory of tittlebats, and requiring much special knowledge for its adequate comprehension.

As the wayfarer trudges along the Zambezian native path, he will not infrequently stoop to pick up, as souvenirs of his journey through the country, quite good-sized porcupine quills; but unless he be endowed with more than the average

measure of good fortune, these will be the only indications of this interesting animal that he will see. Porcupines occur sparingly all over the country, and are, to the extent of their limited capacity, rather a nuisance in the damage they cause tc native pumpkins, sweet potatoes, and other produce.

The porcupine is a solitary type which passes the daylight hours in ant-bear holes, in hollow tree-trunks, and in the shelter afforded by the interior of a hospitable ant-heap. At night it steps meditatively forth in search of provisions, and takes its contemplative way along the deserted native paths, its coming heralded by the ceaseless rattling of its quills. To all intents and purposes the porcupine is neither more nor less than a glorified hedgehog, with the exception that whereas the latter, even while rolled up into its familiar ball, may be handled with care, the former has a disagreeable habit of leaving its quills sticking deeply in the flesh of the person or animal by whom it is molested.

To no members of the game families is this power more deadly than to the great flesh-eaters who have passed the grand climacteric. There comes a time when, owing to the lapse of the fast-fleeting years, the lion and the leopard, finding their usual prey becoming more and more difficult to capture, are compelled to have recourse for a living to forms which cost them a minimum of effort to obtain. Foremost among these is the porcupine, but he proves a terrible meal. His quills are designed like the blades of certain



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**PORCUPINE.**

grasses and their seeds which, once having effected a lodgment in the skin or the clothing, work their way farther and farther in, aided thereto by countless invisible but capable barbs. When, therefore, the beast of prey who casts a longing eye upon the easily captured porcupine retires from his difficult and unsatisfactory feast, he does so with his paws and lips full of quills which defy all attempts at removal. After a time, of course, inflammation is succeeded by suppuration, and not infrequently death from starvation ensues as the natural result of the wretched beast's inability from these causes to get about and obtain a livelihood. I remember some years ago at Quelimane a lion, in a state of the most pitiable emaciation, was washed down the Qua-Qua River, its fore-paws and lips containing a number of porcupine's quills which had effected an immovable lodgment in the flesh. It was evident that in a condition of great feebleness the luckless beast had attempted, as lions often do, to swim the river, and had been carried down on the ebb and drowned.

Young porcupines are pretty little creatures, and are covered with coarse bristly hair which gradually stiffens into quills. They grow very tame, and will eat bread and milk. During the daylight hours they are lethargic, and disinclined to make themselves agreeable, but submit to being handled without any display of irritation or annoyance. Lastly, but by no means least, the flesh of the porcupine is exceedingly dainty.

Probably the most rarely encountered of all

animals, either in Zambezia or anywhere else, is that quaint creature whose yawning holes dot the surface of the ground sometimes by the score; this is the Ant-bear. Mr. Tupman describes the mid-Victorian arbour as a refuge which humane men have erected for the accommodation of spiders, but the future writer upon some of the obscurer phases of African zoology will doubtless refer to the ant-bear hole as a refuge for the accommodation of all sorts of less innocent creatures. Herein the hyena often spends the hours of daylight; the hunting dog, after some time spent in enlargement and renovation, here brings forth its piratical brood; in ant-bear holes lurk the smaller predatory forms, as well as snakes and owls, and herein, should you be mounted and riding with a slack rein, you may take a toss that will be a lesson to you for some time to come.

During the day ant-bears are never seen, but at night, leaving their subterranean retreats, they come up for a time to the earth's surface, with disastrous results occasionally from the teeth and claws of the midnight prowlers.

I discovered one of these animals in Shupanga in 1909, obviously the kill of a leopard, which I must have disturbed soon after the fatal deed. This was the first ant-bear I had ever seen and I examined it with no small interest. It was a clumsy-looking, short-limbed creature, provided with lengthy digging claws, covered with thin hair of a dirty reddish colour. A long, pig-snouted face was crowned by donkey-like ears, which

gave to the deceased's countenance a patient air almost amounting to resignation. I suppose the specimen I examined must have measured something over 8 feet in length, and weighed perhaps 70 or 80 lbs. I remember my carriers gleefully despoiled the leopard of his kill, and devoured the ant-bear themselves with every sign of the completest satisfaction.

This curious animal, which, in spite of the rareness of its appearance, must be very numerous in certain parts of the country where ants abound —and it would be hard to mention a corner of tropical Africa where they do not—nourishes itself, it is believed, entirely upon these insects, which it collects upon its long, sticky tongue. I have often considered it a misfortune alike to mankind and to the ant-bear that the latter's incurably nocturnal habits should perhaps largely stand in the way of his discovering and disposing of the enormous armies of the terrible driver ant which may so frequently be seen crossing the African path, and which are so severely left alone there. If the ant-bear should be impervious to the driver's powerful mandibles it is sad to think of the many rich meals he must miss. However, it is possible, and greatly to be hoped, that he may meet them occasionally in the course of his midnight peregrinations, if such an encounter should result in the destruction of these truly awful creatures.

Another interesting form occasionally met with is the carelessly designated, so-called Honey Badger. I refer to him as carelessly designated because, although honey is a much appreciated

detail of this creature's somewhat lengthy bill of fare—as it is with other items of the creation—it is far from the only comestible upon which the honey badger supports itself. I have seen several of these creatures, and once, unfortunately, was reluctantly compelled to kill one, which I found on skinning him contained a large number of half-grown locusts. But in addition to honey and insects of various kinds, including white and other ants, the honey badger is a great destroyer of rats and mice, in pursuit of which he has been furnished by nature with ample means of burrowing for their nests.

The unfortunate honey badger I was compelled to kill was first espied during the morning march by one of my carriers in the Barué region of Zambezia. Casting discipline to the winds, and his load after it, the misguided porter dashed off in pursuit. Supposing that his disappearance was occasioned by other causes, I paid no attention to the matter until loud yells from some distance in the direction which he had taken intimated the occurrence of some incident of an untoward character. Fearing snake-bite, or some such mishap, I hurried in the direction whence the sounds came, wondering as I did so whether my lancet and permanganate of potassium were fairly accessible, but when I arrived the following tableau presented itself—The carrier, with an expression of face in which pain and alarm were admirably depicted, was executing a kind of *danse fantastique* and roaring lustily, whilst from a portion of his anatomy which the late Dr. Busby

used to declare was especially designed by Providence for the correction of youth, there hung with great determination a curious-looking animal. This pendant beast was like neither dog nor cat; it looked, rather, a curious mixture between an otter and a badger, was about the size of the latter, and gave one the impression of having been originally more or less grey all over but having, by accident, fallen into some black substance which had so coloured it half-way up the flanks and almost to the top of its head. The feet terminated in good serviceable claws, and the expression on the animal's face as it maintained its determined hold was one of placid resolution. This I afterwards ascertained to be a honey badger. Several others of my people having by this time appeared upon the scene, the sufferer was speedily relieved, but no sooner had the honey badger been discouraged from maintaining his grip on the carrier by means of heavy blows from a stick than, instead of retreating like any well-ordered beast into the fastnesses of the bush, he transferred his attentions to my gun-bearer whom he attacked quietly but mischievously. Having by this time two men suffering more or less as the result of this small but determined animal's bites I had now no option but to shoot him.

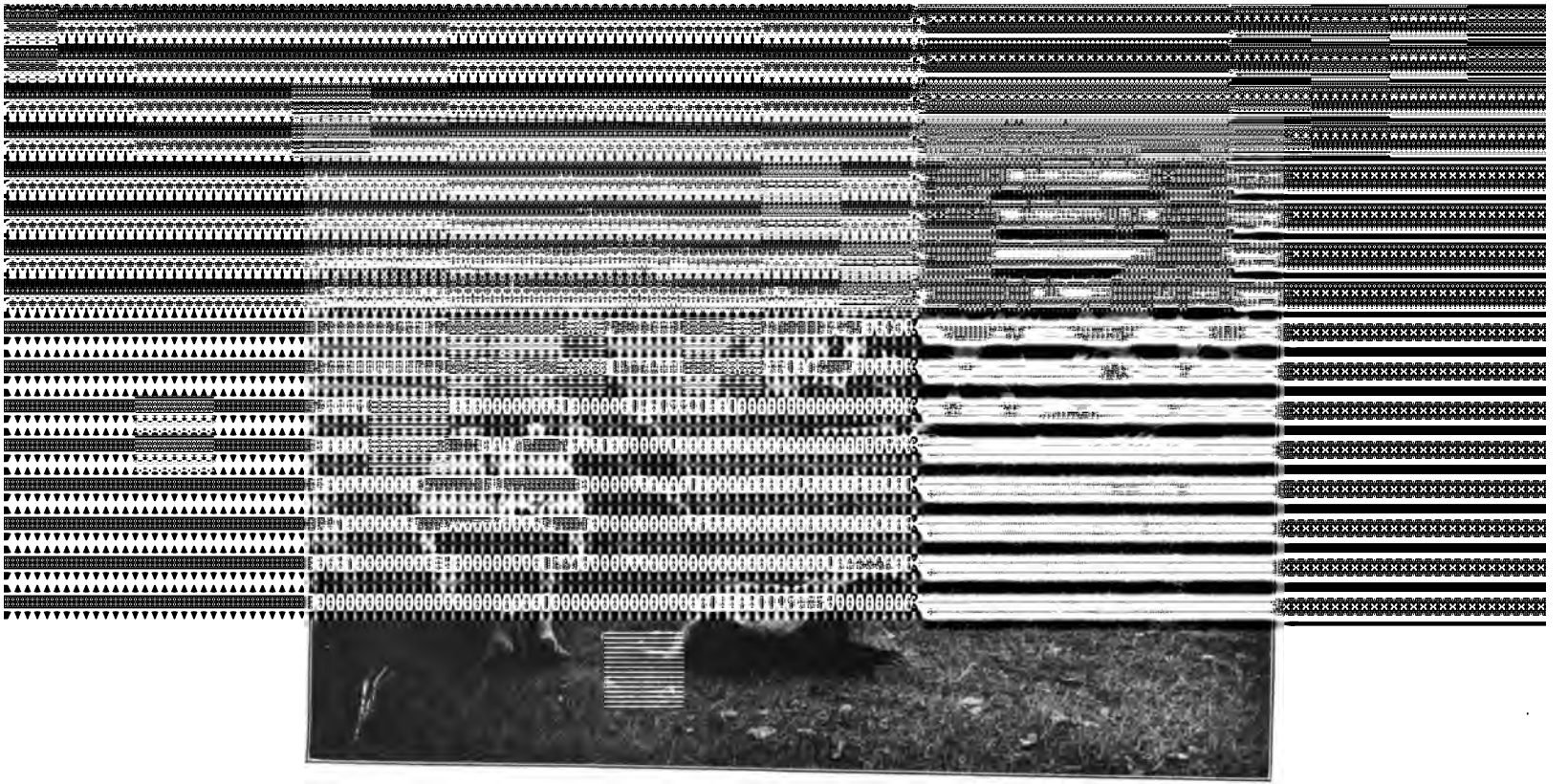
He was a fine, well-grown specimen, and I kept his skin by me for several years. It was a curious trophy, of great thickness, and when stretched from having been pegged out, appeared to have come from some animal of considerably larger size. To this curious fact—namely, the

thickness and looseness of his skin—is attributed his immunity from the bites of snakes. I do not know whether this may be the case, but my hunters have on several occasions recounted to me most exciting instances fo this creature's triumphs over the most deadly of the African poison snakes—even the justly dreaded mamba.

Here is another of those forms with which the average hunter is more likely to become acquainted by means of a trap than a rifle.

The rivers of this part of Africa contain, so far as I am aware, but two kinds of otter—the spotted-necked variety and the widely distributed Cape otter. These are found in great numbers in the extensive marshes of which such wide areas south of the Zambezi consist. The smaller animal last mentioned is of a dull, somewhat pale brown, the former being darker in colour and distinguished by the peculiar characteristic neck spots. My friend Mr. H. L. Duff mentions in one of his publications having seen in Nyasaland the skin of an otter of larger size than either of these, and showing a broad patch of silvery grey on the throat and chest. This animal is by no means unknown in the marshes which form the sources of the Mupa and Mungari Rivers, where I have seen them myself in the possession of the natives. It is possible that this may be a new species.

Otters are night animals, whose curious grunting is perhaps oftener heard than recognised. They live on fish, frogs, and landcrabs, varying this diet occasionally on the appearance of a



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HONEY BADGER.

flight of locusts, but due to their nocturnal habits and inaccessible haunts, they are rarely seen by Europeans.

Hares, and that curious little creature the rock rabbit or dassie, are not uncommon, but somewhat localised. I fancy the Hare is the same as that found in the Nyasaland Protectorate. It is a fine large animal, weighing 6 or 7 lbs., reddish brown in colour, running up to black, streaked with grey, and dirty white underneath. In Gorongoza, and in the hilly country south of Shupanga, these hares are very frequently put up. They do not seem to me to be so good as the home-bred variety, their flesh being singularly tasteless.

The Dassies are not found, so far as I am aware, at a low elevation; but on the high mountain plateaux of Mlanje, Morumballa, and other highlands they exist in large colonies.

That curious creature the Giant Rat is common wherever there are marshes containing the ordinary bango-reed and papyrus rushes. In weight this animal must attain to fully 10 lbs. or over, and is about the size of a large hare. Its body is rat-like in shape, and its tail, though not very long, is quite characteristic of the family to which it belongs. I am informed that its flesh is a great delicacy, but I must confess never to have had the courage to try it. The appearance of this animal, with its great bulk and uncomfortable, bristly coat, is so abnormal, so suggestive of the horrors of a disordered dream, that these considerations completely relieve me of the smallest desire to partake of it.

I have just stated that giant rats frequent swampy, low-lying ground, and low elevations generally, but apparently that is not always the case. Several years ago, I was bidden one night to dine with three friends at that most admirable and comfortable house of entertainment, the Savoy Hotel at Beira, and afterwards, at the invitation of our host, we proceeded upstairs to the top of the three-storied building to indulge in a rubber of bridge. This over, we were sitting chatting quietly, and enjoying the beauty of the soft African night, when I suddenly saw my host's usually jovial face stiffen and freeze into an expression of unbounded horror. Following the direction in which he gazed, I saw an immense rat, such as I have described above, quite casually and leisurely making its way along the top of the outer veranda rail. I rushed to catch it by its stiffly projecting tail in order to swing it round and beat its brains out against the iron of the railing, but the creature was a little too quick for me, and in trying to run down the outer face of the balustrade, it lost its footing, and fell into the street below, a distance of some 45 feet. At that moment several Portuguese soldiers and police officials were passing the hotel. Exactly what happened I shall never know, but, as we gazed over into the darkness, first an exclamation of surprise rose upon the quiet air, then a wild yell of dismay, followed by the pattering of hastily retreating feet. We hurried below, but by the time we had reached the roadway all was quiet, so that there was nothing for it but to separate,

which we accordingly did, after having once more assured each other with great fervour that we *had all seen it.*

I have never received a satisfactory explanation of how or why this rat should have gone into a building at all, or what it was doing at that height from the ground. Two of the party, in addition to myself, recognised it instantly, so that the creature's identity does not admit of a doubt.

Occasionally, if you should be residing or stopping for any length of time in Zambezia, the natives will bring you for sale, all curled up in some disused hencoop, a very scared, recently captured Ant-eater. These curious creatures, about three or four feet long, are rather like a crocodile-shaped armadillo. They are covered all over, except on the under side, of course, with an armour of proof consisting of large, thick, horny scales, which must be a complete protection to them when once curled up into the hedgehog shape they assume upon the approach of danger. These scales are very thick, and of a tough, hard substance, and impervious, I should imagine, to anything short of a rifle bullet. In handling these creatures the greatest care must be taken to avoid getting the fingers caught under the closing armour as he rolls himself up, otherwise they may be very badly crushed indeed.

The scaly ant-eater, as the name indicates, maintains itself, I believe, entirely upon the blind white termite and such other kinds of ants as it can find, but preferably upon the former. It

feeds itself in a manner similar to that followed by the ant-bear, gathering up the helpless, struggling insects many at a time upon its long, sticky tongue. It is perfectly harmless and, owing to its nocturnal habits, but rarely seen. Ant-eaters are furnished at the extremities of their short limbs with powerful digging claws, and the rapidity with which, upon inducement offering, they can get underground must be seen to be believed.

The native witch-doctors, in some parts of the country, utilise the scales of the ant-bear in determining the innocence or guilt of persons accused of the commission of serious offences. Six of these scales and an equal number of flat shells are manipulated, and after much shuffling, division, redivision, and reunion are believed accurately to exonerate or condemn the individual appealing to them.

In addition to the foregoing there are, spread throughout the length and breadth of the country, a number of other small animals of a more or less insignificant character, such as the pole-cats, squirrels, weasels, rats, mice, and moles, with a description of which I have not considered it either necessary or desirable to waste the reader's time. They are really only interesting to the naturalist or the man possessed of special knowledge, and to these this book is not particularly addressed.

Should a collection of these small forms be desired, they must be trapped and carefully prepared for preservation, and an application should

be made to my friend Mr. Oldfield Thomas of the Natural History Museum, Cromwell Road, S.W., who takes great pains in kindly instructing would-be collectors in the best methods to be pursued.

# CHAPTER XI

## THE MONKEYS

ZAMBEZIA certainly cannot be said to possess many families of Monkeys. None of the great apes such as have been found in the equatorial regions and on the western side of the African continent are found here, nor yet can we hope to see that striking form existing as far south and east as the high country north-west of Lake Nyasa, and known as the colobus monkey—that wonderful white and jet black type which is rarely if ever seen lower than the topmost branches of the forest trees.

I remember when I was living at Mozambique, where I was serving at the British Consulate in the later nineties, that a statement vouched for by the local natives was to the effect that upon and around a certain large, table-topped mountain some twenty odd miles to the northward, monkeys had been seen compared with which the largest baboon was but as a child to a full-grown man. On two occasions I went up to a point as near the mountain as I could reach to endeavour to obtain more definite and detailed information regarding this animal, but, although I was shown his haunts, and made what attempts I could to obtain a specimen, or at least to see the creature, I never suc-

ceeded in doing either. Making certain allowances for native exaggeration, it is difficult to believe that the stories one heard of it could possibly have been so consistent and convincing if no foundation really existed for them in fact.

But putting aside this uncertain and shadowy possibility of what there may be, and confining ourselves to the more tangible consideration of what there are, we are at once faced with those fascinating types the two Baboons, which are very well distributed, and quite sufficiently numerous. These are the grey or chacma, and the yellow baboon. To the latter, by reason of his unmistakable colouring, the world of sport and science has grown well accustomed; but there are probably few among the wild creatures of Africa who get themselves so frequently discovered and rediscovered as the unintentionally deceitful chacma. Almost all observers, especially if they should possess, or believe themselves to possess, that vague, intangible quality called special knowledge, have found themselves over and over again on the brink of a new discovery as they gloated over the corpse of some newly slain "old man," whose coat, owing to youth, old age, skin disease, or other similar cause presented slight differences of colour compared with perhaps the last member of his family to fall into their hands. I am convinced that the chacma is almost as varied in the colour of his coat as is his distant relative, the observer; thus you may find him of all shades from bluish grey to dark brown streaked and tinged with grey, and from dirty

white beneath to a paler continuation of the general hue. It has been stated by other writers that this animal does not extend to the north of the Zambezi, but this is incorrect, as I have seen the chacma and shot several specimens in the Quelimane district and in the rocky, mountainous highlands of the Lugella Prazo, but without achieving anything in the nature of a new variety.

In little-frequented districts, and by that I mean, of course, those little frequented by the man with a gun, baboons grow extremely bold. So much is this the case that not infrequently they display considerable reluctance to give way before one, especially where they appear in large troops. South of Shupanga Forest, and on the little-known eastern foothills of the Cheringoma mountain range, I have seen them in bands of nearly a hundred strong. I have a very vivid recollection of one particular evening in Shupanga in 1909. I was encamped for the night in the outskirts of a native village, and, accompanied by a hunter carrying a rifle, had been out for a stroll with my shot-gun, looking for guinea-fowl and pigeons. On the way back we had to cross a small glade of ten to fifteen acres wherein I could see in the longish grass a number of chacmas strolling very slowly in the same direction as ourselves, some on the path and some parallel to it. From time to time they would look at us over their shoulders, stop for a second or two to examine a grass root for insects, and then stroll on again. In this way we continued until I was not more than fifty yards from the outlying score

or so, which contained some exceptionally large animals. Frankly, I did not much like it. Without displaying a threatening appearance, they seemed to be intent upon showing us that they were not going to be hustled by us. At that moment my companion uttered a loud shout, in the expectation of scaring them away, but this simply brought them all round facing us, barking and chattering and evidently in a state of great excitement. As we advanced they continued to retire, still facing us, but at no faster pace than our own, several on each side of the path, mouthing and grimacing and evidently trying hard to get us to retreat. Had we done so I think it very probable that we should have been attacked, and, but for our firearms, severely injured. I refrained from firing upon them, however, and when we gained the trees on the other side near our camp they gradually edged away, but for long afterwards their barks and chatterings, and that singular noise they make like a diamond traversing a pane of glass, were distinctly audible. I have never known baboons make a more hostile demonstration.

Of course the chacma, a considerably larger creature than the common yellow baboon of East Central Africa, is a large, powerful, and formidable animal. Stories are on record of their having attacked human beings when in large numbers, and I remember, years ago, hearing one in Nyasaland, which certainly bore the stamp of circumstantiality, of an unfortunate European who, under the influence of intoxicants, succeeded

in provoking a band of baboons to the point of attacking him and injuring him most seriously.

Baboons, although usually to be found in the granite hills of which so much of South Central Africa consists, are frequently met with in forest country. In the thickly tree-covered plains bordering the Zambezi they are very numerous, and do a great deal of damage to the native gardens, the attack upon which is conducted with the nicest regard for well-thought-out detail. Thus, on approaching the scene of the raid, the troop takes open order, so to speak, the females, with their babies clinging round their necks, or with those of slightly riper growth following behind, advancing directly but noiselessly upon the scene of the robbery, whilst several of the "old men" take up positions, by either climbing trees or getting upon an adjacent rock or ant-hill, which enable them to observe and signal the approach of danger. This they do by the utterance of a gruff bark, whereupon, snatching all they can lay their hands upon, and with cheek-pouches stuffed to their utmost capacity, they tear away, uttering the curious "glazier's diamond" sound to which I have referred above. Should the interruption be caused by the appearance of one or two women, however, they will frequently turn *en bande*, literally mob them, and usually put them to flight, promptly appropriating anything of an edible character which they may have been carrying at the time. There can be no doubt whatsoever that baboons discriminate readily between the males and the females of the human species,

and are fully alive to the ease with which, in comparison with the former, the latter may be stampeded and driven off. It is incontestable that native women hold baboons in the strongest detestation and terror, and various scarcely credible stories are related of the boldness of these animals when women have been reduced through fear to helplessness. Personally I incline strongly to the view that the baboon's one object in demonstrating before native women is to possess himself less of the affrighted female than of any small articles of an edible character she may have in her possession at the time, and I have never heard an authenticated case of the animal having occasioned her further cause for reproach, if one except a severe fright into the bargain. Still, however improbable the belief in the designs which baboons are said to have upon native women and girls, it has gained such ground as to have obtained practically universal belief.

The intelligence of the chacma is extraordinary, and whilst young they make most amusing companions. Very affectionate, and with a perfect memory for acts of kindness and the reverse, they frequently form a strong attachment for their masters which does not altogether fade on the arrival of the deeper preoccupations of maturity. The same is no doubt true of the yellow variety.

At my consular post at Mozambique I had for more than a year led a quiet life of unbroken peace—unbroken that is save for the periodical attacks of fever by which that unhappy island is

See a curious story in Havelock Ellis' Series, "The Psychology of Sex"

perpetually overshadowed, when one evening, during dinner, I was informed that a Portuguese soldier and a monkey desired to see me. I accordingly descended to the court-yard of the Consulate, and found a young corporal of cavalry shedding bitter tears at the prospect of the morrow's departure for Lisbon, which would separate him from his comrade of several years' standing, a large, formidable, singularly evil-looking, yellow baboon named João. Touched by the pathos of the unhappy man's manifest sorrow, and not a little flattered at the confidence he expressed that in my charge João would find a comfortable home—a reflection which would soften the poignancy of his grief—I consented, not without some considerable misgiving, to assume charge of him.

From that evening I count most of the bitterest moments I experienced whilst I resided in the island of Mozambique.

João was secured to a large tree which grew in the middle of the quintal or court-yard of the consular premises, and singularly enough, and as though he had fully assimilated his late master's valedictory exhortations, he and I became fast friends. In fact I was practically his only one, as, except to convey to him his daily food, none of my servants dared to go near him.

A few days later, whilst in the middle of some important task, I received a coldly worded notification from the Commissioner of Police stating that an immense and formidable monkey, said to be mine, had gained its freedom and had prac-

tically taken charge of an important thoroughfare, had bitten, more or less severely, divers peaceful citizens, and must at once be secured or shot. I found João shortly afterwards, seated upon the counter of an Indian sweet shop, and having the time of his life, whilst the tearful and affrighted proprietor, note-book in hand, kept careful account of his ravages by dint of peeping nervously in at the window through which the two from time to time relieved the monotony of these proceedings by making frightful grimaces at each other. João came to my call with a meek and angelic expression apparently of conscious rectitude, and the spectacle of the British representative's progress through the city leading and at times almost carrying a large and larcenous baboon was one which the delighted populace was probably long in forgetting.

Soon afterwards, seated in my study one morning, a soft pattering of hasty naked footsteps on the stairs heralded the entry of the breathless and tearful Goanese cook of my neighbour the Bishop Apostolic of the Province of Mozambique—one of those great princes of the Church who take precedence of even the highest of the administrative authorities. His painful recital, interrupted by frequent gasps of indignation and horror, was to the effect that whilst making preparations for his eminence's luncheon, an immense baboon, who must be the father of all the baboons, of unexampled fierceness, had suddenly leaped upon his back through the open doorway. Regarding what followed, the narrative

was a little vague, except that the immediate flight of the cook had been in no small degree expedited by a vicious bite which he had received in what the late Dean Stanley was wont to describe as the " bosom " of his trousers.

" And now, Senhor Consul," continued the excited oriental, his voice growing gradually higher and shriller as his mind had leisure to grasp more fully the abuses and indignities to which he had been subjected, " and now, it has broken all my eggs, there is nothing left unbroken in my kitchen, and if you will look from the gardens of the Consulate you will see it sitting upon the wall and eating the Bishop's cold turkey."

I must confess I felt the position to be one of unusual difficulty: first to secure the delinquent, who, perched upon a high party-wall, was enjoying himself with the air of one who has the world at his feet, and, secondly, successfully to placate the just wrath of the despoiled prelate. Fortunately I succeeded, after some slight difficulty, and a little coldness, in achieving both, and once more João was led captive to his accustomed tree.

I could fill a chapter with other incidents in this graceless creature's criminal career, or such portion of it as was spent within the scope of my own immediate observation. What was his ultimate fate I never knew—never indeed had the courage to inquire. Being directed soon afterwards to assume office at the British Consulate at Beira, I made all preparations for my departure, and finally locked up the premises preparatory to

proceeding on board my steamer. But before doing so, I stole quietly to the tree whereunder João was tethered, very gently unfastened his detaining bonds, and—fled. We never met again.

This animal, as I have stated elsewhere, belonged to the smaller yellow variety, but even so he was almost if not quite as big as a good-sized mastiff, and his strength, activity and energy were boundless. He certainly seemed to entertain a great affection for me, a circumstance which I have long looked back upon as a somewhat doubtful compliment, and whilst barely tolerant of the native and other servants, would welcome my approach with unmistakable signs of the most touching pleasure. He was quite full grown, but displayed none of the mature chacma's moroseness of disposition on arriving at that stage of life's journey; on the contrary, João was never tired of romping and gambolling, and I have not seldom felt inclined to attribute most of his more regrettable irregularities to that feeling of *joie de vivre* which, during youth, renders the commission of sins so attractive an occupation to most of us during the all too fleeting passage of that bright period.

But I cannot pass from my account of the baboons without reference to the one weak spot in their claim to intelligence—the one blot on their reasoning powers. That is the stupid, unnecessary manner in which they allow themselves to be captured. When first I was told of this method of catching baboons I could not refrain from suspecting that an attempt was being

made to catch me, but I have since found the practice I am about to describe to be a very general one. All that is necessary is a well-secured calabash gourd. Into this, through a small aperture barely large enough to admit the open hand of the victim, a few grains of maize or a small quantity of millet is placed, and the trap deposited in some spot where the baboons are likely to pass. On arrival the eager band are not long in discovering it, and the unlucky wight to do so promptly squeezes his hand through the hole, and closes it triumphantly on the grains of food within. Game is now called, and the watching natives draw nigh to secure their captive. Seeing their approach he makes the most desperate efforts to escape, but finds that with his marauding hand now firmly closed on the bait, which it never for one moment occurs to him to relinquish, he cannot get it out of the gourd, and is thus forced to permit the detaining sack to be thrust over his head without further resistance than a few desperate bites at the hands of his captors.

But, however tame baboons may become in captivity, nothing will ever finally extinguish that mischievous spirit of inherent naughtiness which every one of these animals possesses. I remember, as a case in point, an incident which took place at Beira when I resided there in 1898. I do not quite recollect the occasion, but I fancy it was connected with the Vasco da Gama celebrations which took place in that year, a part of which was the celebration of a High Mass to which

I was officially bidden. It was, of course, customary to attend these functions in full uniform, and the scene in the small church—of corrugated iron, and containing a temperature not usually associated with places of worship—was quite a brilliant one. On this occasion, on leaving, I was accompanied by an officer of the Lisbon Civil Guard some distance on my return to the Consulate. He was, needless to say, very smartly uniformed, and bore in his helmet a fine plume of cock's feathers not unlike those worn by British General Officers. After a moment of *adieux*, he turned into the gardens of his residence, and I continued upon my way. Before I had traversed a dozen yards, however, I heard an exclamation of alarm, and, turning quickly, saw the officer, his helmet hanging over the back of his neck, rush from the premises hotly pursued by a large chacma baboon holding, as it tore after him, a good-sized double handful of the beautiful cock's feathers to which I have just alluded. The pursuit was a short one, the officer drew his sword, and made a number of rapid but ineffectual passes at his active assailant who, despite a display of fine swordsmanship, always kept just out of reach of the whistling blade. A moment afterwards we joined forces, and the baboon was driven off. This animal was the property of a neighbouring railway employé, and having got loose allowed my military friend to get quite close to the tree in which he had taken refuge when, leaping lightly upon his shoulders as he passed, he seized the smart helmet by the plume,

dragged out half the feathers, administered a severe bite on the back of the officer's neck, and regained the tree in the twinkling of an eye. The alarmed guardsman made a precipitate rush into the roadway, scarcely comprehending what had befallen, and, as anybody with a knowledge of baboons well knows, retreat before them is a certain precursor of further trouble. But what filled me with the greatest regret was the saddening spectacle of the moulted plume, which had been shorn of a great amount of its former jauntiness.

Now I do not think for a moment that the baboon acted out of malice; it was tickled, I suppose, by the appearance of the dancing cock's feathers, and being sufficiently tame to have lost all dread of humanity, thought it would perpetrate a practical joke. Personally I am convinced that monkeys have as keen an appreciation of practical jokes as we have—in fact few who have watched them will be unaware of their love of leaping with lightning spring on and off some unconscious, until startled, native's head, and regaining their tree or box with a grimace of enjoyment which reminds one of that of a small underbred boy.

There are in Zambezia, in addition to the baboons, two or three types of monkeys which we may refer to as the grivet, Sykes' monkey, and that very handsome type the Samango.

The Grivets are perhaps the most familiar of the three I have mentioned above. This is the small, grey, blackfaced animal, with a faintly

straw-coloured under-tinge, which becomes such an amusing and intelligent pet if kept in a suitable place of confinement. He is full of life from morning to night, and never quiet for a moment. One of these small creatures was given to my wife by my friend Major Stevenson-Hamilton whilst we resided last year at Delagoa Bay, and during the remainder of our stay there was a source of continual amusement to us. Not more than half-grown at the time of his arrival, Algernon grew apace, and loved nothing so much as a little rough horse-play in the sand. As evening approached and the air grew cooler he would draw over his head and around his shoulders a small, very dirty piece of cloth which thus did duty as a sort of cape, holding it, until slumber relaxed his small fingers, tightly beneath his chin. Should a vagrant current of the afternoon breeze remove this coverlet to a point beyond his reach, his shrill and piercing lamentations would continue until it was restored to him, when, as the gloom deepened, he would climb into his box clutching it nervously to him, and methodically rolling it round him, compose himself to sleep.

Throughout Zambezia grivets are very common, and their skins may frequently be seen in the possession of the natives. They do a good deal of damage, in common with other varieties, to the native gardens, which they despoil of grain, ground-nuts, and other produce. They are frequently seen in small parties in the branches of the mangrove trees which skirt the East African rivers, and in the forest itself may often be

detected fleeing through the branches of the trees, which they agitate like a strong wind.

Sykes' Monkey is a comparative rarity. The only one I have seen was in captivity, in possession of a member of the numerous family of my old Portuguese friend Senhor Balthazar Farinha at Quelimane. Somewhat larger than the grivet, and with a much thicker and handsomer coat, the colouring of this type is in every way richer, running in fine gradations from the reddish black of the lower portion of the back to a fine greenish tinge over the neck and shoulders.

The Samango, of which I recently saw a particularly fine and remarkably tame specimen at the African Lakes Hotel at Chinde, is again, if I mistake not, larger than Sykes' variety. This really beautiful animal passed its days in the branches of a small tree in the back premises of the hotel, where, for hours at a time, it would swing backward and forward at the extremity of its generous tether. The general colour scheme is rich, glossy, dark steel-grey, with black head and limb extremities, the fur very soft and thick, and the features handsomer—if one may use such an expression in connection with a monkey—than are those of others of the smaller varieties. It lacks the velvety gradations of colour seen in Sykes' monkey, as also the bright blue scrotum of the more plainly apparelled grivet.

A very pretty and interesting creature, which also makes a delightful pet, is the small, fluffy, wistful-looking Lemur. I believe in certain parts of Africa, notably the south, this small animal has

been not inappropriately named the "Bush-baby," by reason of the resemblance of its cry to that of a newly-born infant feeling in need of the ministrations of its nurse. The lemur is extraordinarily soft and light, the fine, bluish-grey hair reminding one irresistibly of that of the chinchilla without the latter's pronounced greyness. Nothing could exceed the dignified sedateness of these small creatures, nor the daintiness of their every movement. They can leap considerable distances in pursuit of moths and other insects, alighting with a noiseless lightness incredible in a creature unprovided with wings. One of these small animals which I possessed for a long time developed quite a touching tameness, and the only flaw in its otherwise irreproachable conduct was the inconsiderate manner with which it would occasionally leap from some high vantage ground upon the fez or shoulders of the native servants as they brought in afternoon tea. This arose from the leaper's fondness for milk, which he understood would now make its appearance; but his impatience was on one occasion attended by most serious consequences, the nerve-shattered attendant upon whom he alighted dropping the tea-tray with dire consequences.

In a wild state the lemurs spend most of their time in the trees. They are rarely seen moving owing to their nocturnal habits. During the night the small family leave their hollow tree-trunk, or other place of refuge, and move leisurely through the branches in search of the leaves which they particularly affect, and the resinous gum

which exudes from the bark of certain trees, such as the acacia and others, which it varies occasionally when tempted by a nice, fat night moth. It is probable that many of these small creatures, particularly before reaching maturity, fall victims to the various types of owl which their cries must attract.

As I remarked at the commencement of this chapter, it is a somewhat curious circumstance that in no part of East Africa, so far as we are at present aware, do we find any representatives of the great, and in some cases almost humanly intelligent man-apes, or ape-men—I do not know which may be regarded as the more appropriate term—which exist in Equatorial and certain other portions of West Africa. Chief among these is the gorilla, that enormous terrible type, standing in many cases over 6 feet in height, and practising the power of walking erect to a greater extent perhaps than any other of the diverse families of what are in India so picturesquely designated the " monkey-people." Then another interesting absentee is the chimpanzee of Sierra Leone, Liberia, and other West African geographical divisions. The " chimp," as he is invariably called there, is so human, and recognises so quickly his relationship to the white man that at times, even it is said when newly captured, he has been known to make the greatest distinction between the native and the European, regarding the latter, almost from the commencement of the acquaintanceship, with the utmost confidence, and forming for him an affection as

touching as it is strange. In this regard instances are not few in which, in a few weeks, these creatures are taught to sit and eat at table, using knife, fork, and glass with scrupulous correctness. It is further now a matter of almost common knowledge that this remarkable type of monkey so far resembles the most highly developed of his kind as to experience the emotions prompting to laughter and tears. Chimpanzees also sing and dance, and have oral methods of communicating definite meaning to others of their species. Several West African friends of mine who have owned chimpanzees are all agreed upon these points, and further assure me that they early learn to appreciate the custom of kissing, and cry bitterly if scolded for a fault. Whether the joys of osculation are mutual as between the chimp and his human trainer, I was not told.

But, after all, I do not see why this should not be so. When one comes to consider the very small differences between so-called monkey and so-called man, much which we look upon in the former as abnormal and uncanny provides itself, to my mind, with a very clear and easy explanation. Take, for example, the fact of the possession of a tail. Even the highest form of the man of to-day possesses at birth—and naturally thereafter—attached to that large bone called the sacrum several—three or four—apparently unimportant vertebræ. They are, of course, sunk beneath the skin, but cases have not been wanting in the past of the birth of men-children possessing free and discernible tails. But if we

should come to compare this curious condition of things with the structure of the chimpanzee, and possibly others of the larger apes, we should find that they possess the same rudimentary or atrophied or hidden tail-bones as those found in the structure of man. Huxley has proved to demonstration that, although the same peculiarity cannot be traced in the cases of other animals, every recognised bone and muscle and sinew and formation, even to the possession of a vermiform appendix, found in the larger apes, such as the gorilla and chimpanzee, are present also in the structure of man, with the exception of one or two small muscles in the human hand or foot—I forget which, but I think the latter, since it is a matter of scientific fact that the hand of the higher apes coincides in every respect with that of man.

Then again take the question of hairiness. There are probably few among us who, stripping for a swim, or changing flannels in the club pavilion, have not remarked among our contemporaries hairiness of body or limbs or both almost as great as would be found in the cases of some of the lower animals. There is, in my opinion, no reason for supposing that this hairiness may not at one time have been general in the race, whilst, if we come to examine the cranial formation of the human being, and compare it with that of, say, the chimpanzee, we shall find that, apart from form, both possess to all intents and purposes the same peculiarities of structure, a similarity extending to the number, formation,

and grouping of the teeth, which are the same in twentieth-century man as in the man-like apes mentioned. Of course there are slight differences of form, but they only connect themselves with the size, length, and disposal of the larger canine teeth.

I am afraid the foregoing remarks have but little in common with the purpose which this book originally set out to serve, namely, to describe something of the wild animals of Zambezia, but to my idea the fascinating study of the evolution of our species, and of the peculiarities which characterise and bring near to us our more backward relations, is a subject upon which, in passing, I cannot refrain from writing a few words.

# CHAPTER XII

## CROCODILES, SNAKES, AND SOME OTHER REPTILES

We now come to what it is, I think, impossible to refrain from regarding as the loathsome, abhorrent, and repulsive among the inhabitants of this part of Africa—those revolting forms which Nature would seem to have created in some regrettable moment of boundless vindictiveness, for the express purpose of surrounding the beautiful and useful members of the animal creation with the ever-present risk of a ghastly death by constriction, venom, or drowning. Were there traceable in this incomprehensible dispensation any beneficial or indeed intelligible purpose, any advantage to the many in the sacrifice of the few, the horrible mission of the reptiles might be understood and, to some slight extent perhaps, respected. But there is none whatsoever. When one comes to reflect upon the immense and lamentable loss of human and animal life caused by the vast numbers of reptiles by which Africa is infested—a loss of life uncompensated by any single discoverable advantage, unrequited by the smallest benefit to those who survive—one fails hopelessly to comprehend their inclusion in the scheme of Nature, or to feel anything regarding

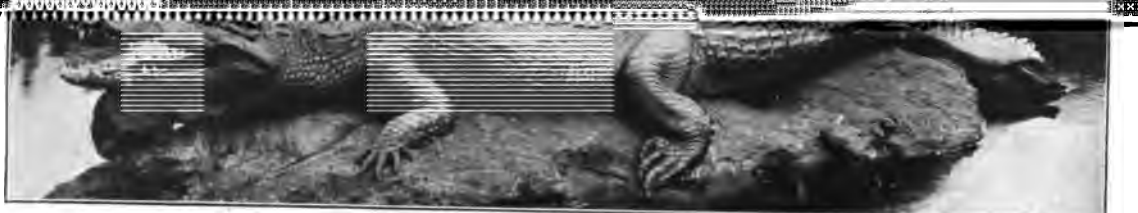
them other than vain regret that their numbers and varieties should to-day be to all intents and purposes just as great and numerous as at any period regarding which we possess reliable data.

Another singular and incomprehensible fact connected with this subject is the length of the period of life assigned to certain members of the reptile families in comparison with that which the mammals enjoy. Take, for example, that hideous blot upon the creation, the crocodile. There can be little doubt that the life of this murderous pest is, in favourable conditions, far longer than that of any of the terrestrial animals, probably not even excepting the largest. The astonishing manner in which the crocodile's teeth renew themselves practically rejuvenates the reptile, and there can be no doubt that this marvellous continuous process of dental change goes on and on until the creature reaches an immense age, altogether, in the present state of our knowledge, beyond computation. Scientists, even those possessed of special knowledge, can afford no insight into the question of how many times, or up to what age, the teeth of the crocodile renew themselves—in fact it may be taken as a fact that these are points regarding which science has nothing whatsoever to tell us.

There is, I believe, only one kind of crocodile found in Africa,[1] and this is thought by some writers to be identical with the type existing and exacting so heavy a tax upon human life in

[1] Since the foregoing was written I learn that West Africa possesses two forms of crocodile, with which I am unfamiliar.

the rivers of our Indian Empire. Whatever may be the case in other parts of the continent, those existing in the Zambezi and its tributaries are not distinguished by extraordinary length, although at times the girth to which they attain is very considerable indeed. The measurements of the largest recovered by me from the great numbers I have destroyed were: length just over 17 ft., girth behind the fore-arms 7 ft. 2 in. This, however, was an exceptionally large specimen, and was killed by me on the banks of the Urema River in Cheringoma in 1904, and was, I suppose, quite 8 ft. longer than the average length to which they attain in this part of Africa. The Urema, like all Portuguese East African streams, is full of crocodiles, many of which are of large size. At the point at which I shot the monster above referred to the river flows through an immense open plain destitute of trees, but high grasses, papyrus rushes, and reeds, growing close to the water, and on wide flats extending for miles back from its banks, invest the whole region with a mournful air of extreme and depressing desolation. These flats become converted during many months of the year by rain and overflows into wide systems of impassable marsh. Through these wastes of high grass and reeds there used to be game tracks—narrow, tortuous ways followed in the dry weather by the large numbers of animals which at one time used the Urema as their daily watering-place. Following one of these one morning I was in time conducted to the



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CROCODILE.

river, flowing sluggishly behind low banks, which, nevertheless, concealed it until within a few yards. Glancing up and down the stream, I saw that at a short distance below me it described a sharp bend, the left margin jutting out in a shallow sand-bank midway across the river. Upon this, fast asleep in the sun, their serrated tails drawn just clear of the water and their terrible jaws wide open, reposed several large crocodiles. By making a quiet *détour* I reached a point a little above, and not more than 40 yards from the unsuspecting reptiles. My Lee-Metford bullet struck the one selected a little behind the eye, and carried away a large portion of the back of the skull. The only evidence that he had been hit lay in the immediate closing of the wide-open jaws. He lay perfectly still, whilst his companions gained the water in a great hurry to an accompaniment of hollow plunges. On opening him, the stomach was found to contain some water-buck meat and a little of the flesh of a mud-fish, but that he was a malefactor was evident from the much eroded remains of a copper or brass wire bangle found among several pounds of stones and pebbles of various sizes. The skull of this creature is still in my possession, and is a trophy of no small interest. A very singular characteristic of crocodiles is their astonishing nervous vitality. Until more than an hour after the death and dismemberment of the specimen above described the muscles continued to twitch and the heart to palpitate. Whilst struggling to remove the hard,

thick skin of the upper portion of the body, this monster occasioned much alarm among such of my people as were engaged upon the task by making a most life-like nervous movement of the tail whilst practically in pieces, and with the whole of his inside removed. So sudden and violent was the movement as completely to trip up one of the operators, who fell underneath the remains and yelled dismally for several moments in the full belief that his last hour had assuredly come.

At the commencement of this chapter I made some reference to the peculiarities of crocodiles' teeth. These are sixty-eight in number, thirty-four in either jaw. They fit accurately into spaces provided for them above and below on the same principle as a rat-trap. The two largest teeth of the lower jaw, some 8 inches in length, fit snugly into hollows provided in the bone of the upper jaw. It is clear, therefore, that the crocodile's teeth are designed more for the purpose of seizing and holding his prey than for the ordinary purposes of food mastication, for which they appear to be entirely unsuited. It would thus seem that crocodiles, instead of feeding by the usual means of chewing their food, either tear it to pieces and bolt it in huge lumps, or swallow it whole. These teeth are hollow and, on becoming worn out, are pushed out of place by new ones which slowly form beneath to replace them. I have examined the teeth of a great many of these reptiles, but never remember to have seen one in a state

indicating much wear, as is so frequently the case among the terrestrial animals of all kinds. At the extremities of the short forearms crocodiles are furnished with a hand-like foot terminating in long claws sometimes fully 2 inches in length, which, it has been suggested, are used for holding their prey whilst with their teeth they tear and devour it. They carry four small glands of musk, two beneath the jaws and two a little in front of the hind legs, but though strong and of good quality I am unaware that the natives attach any value to it. Certain portions of the skin can be utilised for commercial purposes, but I fancy that only a very small percentage of the vast numbers of articles which are exhibited in Europe made apparently from the hides of these reptiles ever came from the body of any creature even remotely resembling them.

Although not possessed of lungs of abnormal size, these weird types can apparently remain submerged for unlimited periods of time and, unlike the hippopotamus, on regaining the surface, renew their air supply without a sound, quietly and unostentatiously withdrawing from the surface obviously intent upon avoiding notice or remark. It has been suggested by other observers that the stones invariably found in the stomach of the crocodile are swallowed as in the cases of fowls and other birds for the purpose of assisting digestion. The natives of various parts of Africa, however, state that they are swallowed to assist the creature

motionlessly to maintain its required or desired degree of submersion—in other words, as ballast. Now without being in a position personally to support either view, from the results of my own observation, I think, when regard is had to the immense potency of the crocodile's gastric fluid, that the idea would seem to have much to commend it.

There can be, I imagine, little doubt that crocodiles hibernate. Certainly they do so in the "tanks" of India, whilst when annually Lake Hardinge in British East Africa dries up, crocodiles are said to remain there in a state of torpor, half concealed in the mud, where they await the return of the rainy season.

The crushing force of a crocodile's jaws is enormous. On the Zambezi I was once shown an ordinary galvanised iron bucket which, tied to a cord, is thrown into the river to draw water for deck washing and other similar purposes. This had been taken by a crocodile at Shupanga, and when recovered was quite flat, the bottom bent outward like a doubled piece of paper, and the sides pierced completely through by the merciless drill-like teeth. On another occasion one of my natives was drawing in a large barbel caught on an ordinary line when, as he described it, there was a rush and a swirl and he drew up about one-third of the fish, the remainder having been cut clean off by a single snap from a crocodile's jaws. I have also seen on several rivers halves and other portions of fish drifting down which could only have been separated

from the missing sections by this cause. Of course the crocodile no doubt is an extensive fish-eater on those many occasions when he can get nothing else—indeed there are said, in portions of British East Africa, to be certain small lakes (Lake Baringo for example) containing these reptiles where it is perfectly safe to bathe as, owing to their invariable habit of devouring fish, they have never been known to take mammals of any description. Personally I must confess that I should not care, in the light of my knowledge of these creatures, to take the risk. But in crocodile-infested waters they may at times be watched in pursuit of the fish when, usually at early morning or late afternoon, these seek the landward shallows. Often, seated upon the river banks of several East African streams, at a respectful distance from the edge of the water be it understood, I have seen the crocodiles pursuing the teeming river fish, into the midst of which they dash with great violence, so much so that it is no unusual occurrence for half a dozen or more of the affrighted creatures to leap clear of the water upon the sandy bank, there to fall an easy prey to the ever-present fishing eagles or to the omnivorous native.

Possibly to the fact that these reptiles pursue the shoals into shallow water about the sunset hour may be due also the circumstance that just before and after nightfall is regarded as the time at which their attack is most to be feared. Then, as at early dawn, it is literally unsafe to stand

within six or eight feet of the edge of the water unless you are many feet above it. It is a generally admitted fact that the crocodile has a surprising power of seeing distant objects from under water, and once having marked down prospective prey, his method of procedure is one of the utmost coolness and the most methodical calculation. He rises so slowly and unobtrusively to the surface that only the eyes and crown of the head are exposed, and probably in nine cases out of ten these escape observation. Sinking once more he gradually and imperceptibly draws near to the unconscious object of his desires, which may be a native knee-deep performing his evening ablutions; a woman, her sleeping child slung upon her back, filling the domestic water-pots; an antelope drinking—all is grist to the devouring crocodile. Little by little, still invisible, that terrible dusky form glides slowly beneath the surface of the water, until, arrived at a point but a few yards from its unsuspecting victim, there is suddenly a terrific, a lightning rush, a heavy splash, a wild, agonising scream, and—silence. A disturbance takes place out yonder in the deeper water, a hand and arm appear and disappear, a slight wave dances gently landward, and the earthenware water-pots on the river bank are the sole evidence of a tragedy which is all too frequent.

I have seen two persons thus taken, or rather I saw them and saw them no longer, so instantaneous was the ghastly incident; but what is so terrible in such experiences is their hopelessness, the impossibility, though the victim were

taken from your very side, of help or rescue. The last case I saw was particularly distressing. The man, a native, was in the act of washing in the shallows, as natives will, although fully aware of the dangers they risk in doing so, and I had actually turned to address a remark to the European upon whose veranda I was sitting, regarding the foolhardiness of the misguided bather. As I did so he uttered an exclamation, and leaped to his feet, and I looked back to the river just in time to hear a piteous scream and see a commotion in the deep water a few yards out from the river bank upon which the victim had been standing—just such an agitation as would be made by some huge fish swimming rapidly towards the centre. This died gradually away, and we realised that the poor fellow was indeed gone for ever. We rushed to the water's edge. There lay a red fez, and a small pile of clothing. The wide Zambezi flowed placidly at our feet and —that was all. The victim in this instance was my host's *capitão*, or head plantation superintendent, and, he told me, a man who would be extremely difficult to replace; but what doubtless contributed in this as in hundreds of other cases to the fatal issue is the blind faith the ill-advised victim as usual reposed in the efficacy of some charm purchased, probably at no little cost, from a local medicine man and guaranteed to render him immune to crocodiles, as well as to other perils of African daily life. Over and over again I have questioned natives as to the meaning of some row of little pieces of reeds or bark or

bones, strung together round their necks or wrists or about their bodies, and if they have known me well enough to unbosom themselves of the secret, they have replied quite quietly and frankly, but with an unshakable air of steady conviction, that it was a charm rendering bullets powerless, or wild beasts blind, or the wearer invisible, or some similar rubbish—virtues in which most South Central Africans have the blindest faith, which no words of mine could discourage for an instant. Thus it is, without question, that, with a confidence in their superstition not wholly destitute of pathos, they sacrifice themselves daily to the horrible monsters which inhabit in unsuspected numbers almost every African creek and waterway.

The boldness of crocodiles at times is inconceivable. Captain Ross, of one of the Flotilla Company's Zambezi steamers, lost the coxswain of one of his barges, who was taken in the act of micturition whilst crouching upon one of the barge's rudder pintles, and this whilst the steamer was under way in the Shiré River. A case occurred in the Ruo stream near Chiromo of a native being swept from the stern of his canoe by a blow from a crocodile's tail, and instances are not wanting of persons standing or walking several feet from the water's edge being thrown down in a similar manner and carried off. In very few instances, where the reptile gets a good hold, is escape possible, unless it be a young one of small size. As I think I have pointed out elsewhere, the teeth of these creatures are

specially designed for holding, and their tenacity is such that they will frequently allow themselves to be drawn from the water and speared rather than loosen that terrible, remorseless grip. One or two cases, however, of escape from crocodiles are within my recollection. One was that of a Blantyre Mission boy who was seized in the Shiré River near Katungas. Fortunately he was enabled to grasp a neighbouring tree branch, and no doubt his assailant was of small size. In any case he held on, yelling loudly for help, which luckily came in the nick of time. The second case was less fortunate, for although delivered from the jaws of the crocodile in circumstances similar to those described in the preceding instance, the unhappy native died under the anæsthetic employed in the amputation which his injuries rendered necessary.

In crossing African rivers known to be haunted by crocodiles the safest plan, although one not always effective, is to do so accompanied by a number of natives splashing and shouting loudly. I remember on one occasion having to ford the Urema River in Cheringoma together with about forty carriers and servants. The water was about waist-deep, and as we glanced up and down the ill-omened stream we could see the horrible coffin-shaped heads of at least a dozen large crocodiles both above and below us. Before venturing into the water I fired several shots from a magazine rifle, and made my men shout loudly and together. The heads withdrew and we began the crossing. I was shouldered over by two stalwart

Shangans, and when about half-way I saw to my alarm that the crocodiles' heads had reappeared, and seemed if anything rather nearer than before. Raising my rifle, therefore, I fired at the nearest, and the next moment my two carriers and myself were lying in a struggling heap in the bottom of the river. Startled by my shot they dropped me, and then in an access of nervousness fell over on the top of me. However, we were soon out and, to my inexpressible relief, none of my people were missing, so the rest was of no importance; but I have never seen a more unpleasant sight than those grim heads regarding us on either hand as we shouted and splashed our way across the crocodile-infested waters of the Urema.

The females of these ill-devised creatures lay about fifty or sixty eggs, burying them rather more than a foot deep in the sand bordering the waters they frequent, the localities being plainly identifiable by the marks of their belly-scales and claw excavations. The egg is white, about the same size as a duck's egg, and almost spherical. The young are hatched out by the warmth of the sun's rays, and the tiny creatures, only a few inches long, take immediately to water, most of them to find sanctuary in the omnivorous and cannibalistic stomachs of one or other of their own species. These eggs are greatly prized as articles of diet by certain tribes, but I do not know up to what stage of the young crocodile's unhatched existence.

A somewhat amusing experience befell one of my officials when I was serving in 1912 at the

British Consulate at Lourenço Marques. This gentleman, who has many friends scattered over South Africa, was one day the recipient of a small wooden box which, a letter received by the same post informed him, contained several crocodile's eggs. Being an uninquisitive person of singularly placid and *insouciant* temperament, he allowed the box and its contents to repose for some days unopened beneath the shadow of an office or other table. One drowsy afternoon our friend's attention, not being for the moment monopolised by an overburdening amount of work, was gradually attracted to a curious, inexplicable, scratching, rustling sound, as elusive and as difficult to locate as that of a midnight mouse gnawing the skirting-board. The obstinate continuation of this monotonous noise placing further repose out of the question, efforts were made to ascertain its cause, and after a prolonged search it was found, I think several days later, to proceed from the identical box wherein the crocodile's eggs were enclosed. This was at last cautiously opened, whereupon several of the eggs were found to have hatched out. The small reptiles, exceedingly active and no doubt very hungry, were speedily placed in an improvised pond where, the last time I saw them, they appeared to be doing uncommonly well.

Among African snakes I suppose the most justly dreaded of all is the deadly Mamba, which is found, happily not in very great numbers, throughout the valley of the Zambezi, and there-

fore all over the area with which these pages connect themselves.

The mambas which I have seen and killed in Zambezia were, on the average, about 7 or 8 feet long. In some cases of a dull, greenish black; in others of a fine transparent green. This curious variation of colour, however, is believed to be only indicative of the reptile having recently sloughed his skin; the newly acquired integument gradually darkening in colour until the characteristic hue of what is somewhat unnecessarily called the "black mamba" is attained. Beneath the belly these snakes are white.

mamba

The mamba is an appallingly venomous reptile, its bite being said to be followed by certain death in from ten to twenty minutes. Apparently this creature spends as much time in the branches of trees as upon the earth's surface; especially is this the case in the spring and early summer, when, doubtless, it subsists largely upon the young birds at that time leaving the parent nests. Mambas travel through the leafy branches at an astonishingly rapid pace; where the trees are continuous they pass from one to another with a smooth, speedy, gliding motion which must be seen to be appreciated. On land their method of progression, with about one-third of the body raised from the ground, is so swift that the fleetest runner, if followed by them, would have but little if any chance of escape. Fortunately, however, mambas, like all other inhabitants of the wilds—if we except

certain unpleasant insects—do not seek human society. Except in cases where the biped intruder blunders into the vicinity of a nest, or finds himself between the creature and its hole, it will practically always retire.

The recorded cases of the deaths which have taken place as the result of the bites of mambas are not, I believe, very numerous. Certainly, during the whole of my many years of service in Africa, I have never heard of an authenticated case of loss from snake-bite of any kind of human life. The only casualty from this cause which I have actually seen was the death of a pig in the outskirts of a native village near Tete, the perpetrator of the tragedy (which I did not see) being described to me as a reptile whose peculiarities coincided exactly with those of the mamba. In this case certainly death was very rapid.

But what renders the name of this snake so dreaded by Europeans and natives alike is the certainty that death must ensue from the injection of its venom. In the cases of nearly all other poisonous reptiles, such, for instance, as the puff-adder and, in some cases, I believe, the African cobra, the bites of these creatures are often, but by no means always, followed by a fatal result; but the mamba is more thorough, and from the punctures of its fangs there is no escape.

The head of this serpent is small, as, indeed, is the girth of its entire body. The poison, contained in glands above and on each side of the root of the tongue, is injected through two

hollow fangs which, in the act of striking, are thrown forward in the jaw and project momentarily from it.[1] On the reptile's head recovering itself after the blow, these fangs fly back, and are restored to their normal position pointing to the back of the throat. I do not think that the natives of Zambezia extract and utilise snake poison as is done in other parts of the continent and elsewhere for the poisoning of arrows and other unpleasant purposes, nor are they aware of any special remedies for snake-bite such as have made quite a small reputation for themselves in certain parts of South Africa. They certainly apply messy-looking decoctions of herbs to the part bitten, but I should, I fear, have but little faith in the efficacy of their ministrations in case of necessity.

The Python, compared with the form we have just been considering, is a comparatively innocent and harmless creature, although perhaps he may not look it. Pythons in Zambezia, especially in Shupanga Forest, in Cheringoma, and in some of the rocky streamways of Gorongoza, grow to great and impressive size; one shot by me some years ago on the Mudi stream near Blantyre, in the Nyasaland Protectorate, measuring a little over 20 feet in length by possibly 80 inches in girth at the thickest point. Pythons love cool, dim forest, or rocky, mountainous surroundings, and are rarely found very far from water. I remember seeing one swimming strongly and well in the Zambezi River a little above Mozambique

[1] By means of opening the jaws to their widest extent.

Island in the Lupata Gorge. From time to time it immersed itself completely, but the greater part of the distance over which I traced it the head was held clear of the surface. On land they are slow and, unlike the mambas, move apparently at the expense of no little effort; but they delight in water, wherein they spend a great portion of their time, and whence they seize and capture no small proportion of their prey. These creatures are not unhandsome in appearance, and stand at the head of the seventy per cent. or so of African snakes which possess no venom. They kill their prey entirely by constriction. It consists of small animals, birds, and, at times it must be confessed, children. I never heard of a full-grown man or woman being taken by a python, but I have actually conversed with the parents of a small child who met his death near a village in the Barué from this cause. They informed me that the poor little creature, who used to play all day long at a reed-bordered stream which flowed past their village, was one day missed and the inhabitants turned out to search for him. The quest continued for nearly two days, when a large gorged python was discovered concealed in a reed-patch. It was killed without difficulty and the body of the missing child, already a mass of decomposition, was removed from it. Ordinarily, however, I do not think it is usual for any animal larger than a duiker or small reedbuck to be found in a python. Once seized, the great snake rapidly coils itself round the victim's body and proceeds

gradually and methodically to squeeze the life out of it. Just how long this dreadful process takes must depend largely upon the age and vitality of the creature caught, but I do not suppose many minutes would elapse before the unrecognisably crushed form was ready for the gradual process of deglutition. The python can, of course, in lean times, abstain from food without apparent serious consequences for many months at a time; but how long it takes him to get rid of a good-sized animal by the process of digestion I am unable to say. Certain it is, however, that while thus gorged he is wholly helpless, and may fall a victim to one or several of many enemies, foremost among which are the mungooses and those terrible insects the driver ants. I have heard the natives say that pythons, before embarking on the risks inseparable from one of their periodical feasts, will quarter the country for days to assure themselves that there are no drivers, holding these frightful creatures apparently in the greatest dread. How this interesting practice has been ascertained I have, of course, no means of knowing, but it is somewhat curious that both in East and West Africa the story is believed. In their ungorged and therefore presumably hungry condition pythons, although not difficult to capture, assume at times an extremely unpleasant not to say threatening aspect as, with head raised and thrown back and the uncomfortable-looking inward curved teeth displayed, they regard one with sinister glance and low menacing hiss.

Although they invariably retreat before man with all the small amount of celerity which Nature has bestowed upon them, these reptiles are by no means averse to taking up their abode in the vicinity of human habitations, being doubtless attracted thereto by the fowls and domestic animals, which afford them a moderate certainty of plenty with a minimum of effort. Dogs, cats, and fowls begin then mysteriously to disappear, and continue to do so until the marauder is discovered, probably in the space between the flooring boards and the ground without which few houses in the interior of Africa are considered to be properly built. If the new-comer should unguardedly ask what this ill-devised space is for he will probably be contemptuously told that it is for fresh air and ventilation, and will retire feeling rather crushed. If this should be the case, all I can say is that the advantages mentioned must be obtained at no small cost, for I find as a rule that little by little this ventilation space degenerates into a squalid rubbish-heap, the happy hunting ground of rats, snakes, cockroaches, and specimens of many species of the countless types of spiteful and noxious vermin with which poor Africa has been so richly—so undeservedly—endowed.

Exactly what is the amount of constriction which pythons can exert is not known. Occasionally they are disturbed in this portion of the preparations for their melancholy feast, and more than once the victim has been snatched from their jaws in the very nick of time. I think it was my old friend Père Torrens of the Franciscan Mission

Station at Shupanga who told me that on one occasion a dog to which he was much attached was heard at some short distance from the Mission's well-known vegetable garden, yelping piteously as though in great trouble. Hastening to the spot, it was found in the grip of a medium-sized python, which was immediately killed. The dog's body showed signs of severe crushing, practically all the ribs being broken. It was still alive, but so terribly had the organs of the body been displaced by the appalling pressure to which they had been subjected that it was deemed necessary to put it out of its pain.

Cobra

Returning to the venomous varieties, probably the most dangerous and dreaded among the poisonous snakes, after the mamba, is the common Black-necked Cobra. This very handsome snake is neither so large nor so deadly as the variety mentioned, rarely reaching a length of more than 6 or 7 feet. I do not know whether its relationship to its Indian namesake is proclaimed by any other peculiarities than the characteristic hood which it raises by swelling out the skin of the neck when angry or disturbed. These snakes are very fond of rats, and of the eggs and young of domestic fowls. In the cold weather they have an undesirable habit of coming into outhouses, and sometimes into the ceilings of the main dwelling. When I resided at Blantyre in the early nineties, officials of the Government were not lodged so luxuriously as they are at present. For some months I occupied two rooms adjoining the Court House over which I presided,

a building constructed of crumbling sun-dried brick, the ceilings of which, in pathetic imitation of the white ceilings of Europe, were made of white calico, and swayed up and down in the slightest breeze. The entire building was infested by rats of large size and bold demeanour, who gibbered at one as one lay in bed, and generally made things uncomfortable. More than once I have distinctly seen making its way across my calico ceiling the sinuous form of a rat-pursuing snake, which I have no doubt was a black-necked cobra. It was an unhappy feeling to follow the course of this reptile in the calico, harassed, as one could not help feeling, by a lurking doubt as to whether, after some years of use, the texture of the ceiling was sufficiently strong to support the ill-omened thing which visibly squirmed across it. On occasion they will seek still closer acquaintanceship with human beings, a striking illustration of this tendency being the painful experience of a lovable old Blantyre Mission lady who, on turning down the sheets preparatory to getting into her comfortable bed, therein discovered one of these ambitious reptiles.

The black-necked cobra, like the South African ringhals, possesses also the power of spitting its venom, with which it can strike an opponent—usually aiming for the eye—at a distance of two or three yards, or perhaps more, setting up an unbearably painful inflammation which, if no aid be near, may well cost the sight of one or both eyes, and in any case leaves effects which do not wear off for several weeks. I have been informed that the

appearance of the poison as it leaves the cobra's mouth is similar to that which would be presented by a tiny jet of colourless fluid projected with great force from a hypodermic syringe.

Another extremely unpleasant and very common type of reptile is the somewhat sluggish but very venomous Puff-adder. These semi-torpid, rather prettily marked creatures only achieve a length of about 8 feet, but are broad and corpulent in proportion. Their venom is said to be only occasionally fatal to human beings, but is probably invariably so to the small mammals and batrachians which form its staple diet. They are very fond of taking refuge from the cold in travellers' clothing and blankets, in the folds of the tent curtain, or any corner which promises warmth and shelter. They love to lie extended in native paths and game tracks, and administer —if nothing worse—many a shock to the nerves of human beings advancing, it may be, somewhat carelessly through the bush. I suppose their powers of hearing must be poor, and thus they are, unlike other reptiles, unaware of the approach of an intruder until he is close at hand, when they utter a low threatening hiss and strike, if the opportunity present itself, with lightning speed and serious result. More than once in my African outhouses I have had unexpected and extremely unwelcome meetings with puff-adders, one of which succeeded in striking me, but luckily on a thick leather shooting-boot. Dogs frequently fall victims to their bites. A very handsome, well-bred Irish terrier belonging to a friend

of mine at Beira was killed by a puff-adder during an evening stroll; he lived some hours afterwards but, in spite of every effort and the ministrations of two doctors, finally succumbed. In another instance a very smart little pony, the property of a Swiss gentleman of my acquaintance at Quelimane, met with a similar fate from the same cause.

There are one or two other venomous adders of smaller size which are capable of inflicting painful and dangerous if seldom fatal bites.

In the Nyasaland Protectorate, however, and doubtless in parts of the adjoining Portuguese Sphere, there is the persistent rumour of an arboreal snake which the natives certainly regard with such dread that nothing would induce them to go within a long distance of their reputed haunts. I refer to this creature, I must confess, with some diffidence, for an allusion to it contained in one of my previous books was received with so much wonder, not to say amusement, that it almost cost me my reputation for seriousness; but, let doubters and cavillers say what they will, I am nevertheless satisfied, first from the unanimity of detail with which native report describes the creature, and secondly from the statements made to me by a cautious Scots cleric on the subject, that this reptile exists, and that one day his scientific name, almost as long and far more unsightly than his stuffed carcase, will be duly chronicled in the list of African reptiles.

The snake in question would appear to be

something akin to our conception of the cockatrice, and is said to possess a red comb upon its head, and to have the unusual power of producing at will a curious melancholy, metallic cry. A description given to me many years ago by the Rev. D. C. Ruffelle-Scott of the Church of Scotland Mission, than whom no more scrupulously accurate person ever entered Nyasaland, of an experience in the course of which he caught sight of one of these creatures, was that of a snake of bright green colour, not more than 7 or 8 feet long, but of great and almost disproportionate girth, which moved through the branches with wonderful speed, and successfully stampeded every carrier who accompanied him. My informant was unable to vouch for the comb upon the reptile's head, not did he hear its not unmusical cry, but he was fully convinced during the remainder of his life that this was the semi-legendary tree snake so firmly believed in by the Nyasaland natives from the north of Lake Nyasa to the most southerly boundary of that fascinating colony.

In his book, *Nyasaland under the Foreign Office*, Mr. H. L. Duff mentions having heard the cry of some creature which his terrified servants assured him was that of the "Songo," a serpent "with a head like a cock," and he adds that all the natives in the district of Livingstonia professed the greatest dread of the creature; whilst, if further *prima facie* evidence be wanting, he tells us that a Mr. Murray of the Livingstonia Mission informed him that a native stated to

have been struck by a "Songo" was on one occasion admitted to the Mission, where he died shortly afterwards in great agony.

I myself have on several occasions found my natives refuse to proceed in a given direction across country for the same reason, namely, that it was the haunt of the "Songo." More than once I have left them behind, and alone and unaccompanied have endeavoured to solve the mystery surrounding this snake, but, unhappily, without success. For all that, however, I am convinced that there is foundation for the persistent reports of this creature's existence, and I confess that I would give much to have an opportunity of clearing the matter up.

Zambezia contains numerous lizards, the largest of which, commonly called the iguana, reaches at times to a length of 4 or 5 feet. This creature is more or less amphibious, and is never found very far from water. There are, in addition, several very beautifully coloured lizards, foremost among which the agama, brilliant in blue and yellow, and the grey and olive green rock lizards, bask all day in the hot sunshine. Then there are the large-headed arboreal geckos, scarcely distinguishable from the bark of the trees up which they dart, and many others.

Land and water tortoises are fairly numerous, and greatly liked by the natives as articles of food. Great care should be exercised in handling the latter, as they are vicious creatures, and can administer a terrible bite.

# CHAPTER XIII

## RIFLES: AMMUNITION: CAMP EQUIPMENT: GENERAL HINTS

On a hunting expedition of whatsoever duration the choice of suitable arms, ammunition, and camp equipment must always be the chief factor in the success or failure of the enterprise, and although in other and more detailed works on the subject than this can claim to be the subject has been ably dealt with, improvements, nevertheless, succeed each other nowadays with such rapidity that what is *dernier cri* to-day may easily be outclassed to-morrow.

Few persons who have not paid the price of experience on one or more protracted African journeys either of business or pleasure realise the importance of the little things which mean so much when one is far from the last centre where they could have been procured; and certainly fewer still of those who have anticipated with satisfaction a period of unshaven, uncollared freedom, and the reputed joys of "roughing it," would believe how seldom these joys as such prolong themselves beyond the first week or so, and how much more rarely after the first sharp attack of fever. And so, in addition to descanting to the best of my knowledge upon

the more indispensable elements, I shall endeavour, from recollections of the occasions when I myself wished that I had them, to incorporate a few remarks upon what I can only refer to *en masse* as those precious little things which matter so much.

The question of firearms leads one insensibly to cast a backward glance at the astonishing evolution of the modern arm which has taken place within the recollection of contemporary hunters. Writing as recently as 1890, Sir Samuel Baker recommended to persons contemplating a hunting expedition to Africa a battery consisting of two double-barrelled 8-bore rifles, firing a charge of 14 drams of black powder and a three-ounce bullet of hardened metal. One of these was to be the rifle for every-day use—the sort of little toy that the sportsman would pick lightly up and tuck under his arm when he went for a stroll whilst his meal was being got ready; but did he require anything really formidable, something capable of administering a still greater shock, his attention was directed to a single-barrelled rifle "weighing 22 lbs.," and sighted most accurately to 400 yards. This frightful weapon, designed to be fired if necessary from a tripod, was built to carry a half-pound steel shell containing a bursting charge of half an ounce of fine grain powder, and the propelling charge was SIXTEEN DRAMS of black powder.

Turning from these appalling pieces of ordnance of almost the other day, and glancing through an illustrated catalogue of modern

high velocity arms, the rapidity with which, step by step, the present light, powerful, perfectly balanced and accurately sighted rifle has been reached is comparable only to the astonishing improvement in the ammunition of the present day. Naturally the preponderating amount of credit for this truly marvellous result is accorded quite justly to the persevering gunmaker; but no small share in the responsibility is due to quite another person, namely, to the man who buys and uses the arm when completed, and whose experiences with it enable him to offer suggestions for future embodiment in a more perfect weapon.

Twenty years ago, the expresses and the old Martini ·450 were just being superseded by the smaller, lighter, handier Lee-Metford. Men of my acquaintance who had shot for years with heavy, punishing express rifles of ·400, ·450, ·500, and ·577 were amazed at the accuracy and penetration of the neat, comparatively tiny ·303 cartridge, and its success as a sporting arm was rapid and overwhelming. The immense advantage of cordite as a propulsive force was at once understood and appreciated. The practical elimination of the old cumbersome back-sight by the flat trajectory afforded by the use of the new powder was in itself an unhoped for revelation. What did it matter whether the beast stood at 100 or 150 or 200 yards? One fixed sight and a straight-held rifle were capable of doing all that had previously demanded anxious and accurate estimates of distances and a careful adjustment of

sights thereafter. Then think of the unaccustomed absence of smoke; of having no longer, after a shot in the damp, hanging mists of early morning, to peer anxiously through the smoky curtain beyond which, for all you knew to the contrary, an enraged beast might be in the act of furiously charging. No, the introduction of cordite marked an epoch as important in its way as those which transformed flintlock into percussion, or the insertion of the charge from the muzzle to the breech.

But we have advanced so far along the road towards perfection in firearms that many have perhaps overlooked the fact that what led to the crowning triumph of the gunmaker's art which is placed in our hands to-day was not the study of rifling or barrel construction, but the perfecting, after years of heart-breaking experiment, of the modern elongated bullet. The first really successful bullet for fairly long ranges was, I suppose, the old Martini ·450. It was as superior to the Snider, which it practically put out of business, as was the latter to the projectile used in the old Brown Bess. By its apparently disproportionate length it was not only more satisfactorily gripped by the barrel than was the shorter bullet, but enabled considerable and important modifications to be made in the rifling itself. Since it made its appearance we have had all sorts of extraordinary bullets invented, some almost as long as a waistcoat-pocket pencil, some pointed and some hollow-pointed, some copper-capped and some lead-nosed, but never have any of these

sacrificed by so much as an iota the length of body which conferred upon them their immense range, flat trajectory, and tremendous muzzle velocity. It is, I think, no small stride to have increased within living memory the flight of a rifle bullet from the 1650 feet per second of the old ·577 express, to the 3500 feet per second of the modern cordite-propelled projectile; and although it is as unsafe as it is undesirable to dogmatise upon a matter such as this, where constant experiment aims at still higher things, it is perhaps probable that, in point of killing efficiency, the game rifle of to-day is almost as near perfection as it is destined to reach.

Glancing now at the question of the arms with which shooting in Africa should to-day be undertaken, it is, of course, difficult if not impossible to lay down any definite rule. Opinion upon these points is extremely divided, and a weapon which in the hands of one man would prove all that was desired, might in those of another be found disappointingly ineffective. Still, generally speaking, in the selection of a battery the following elementary considerations should be carefully borne in mind. First of all the character of the game likely to be encountered. In the case of beasts of dangerous type and great vitality, it is obviously essential to be provided with at least one weapon which combines great penetration with tremendous shock. Penetration alone, in the cases of animals from which a charge may be expected, is by no means the only quality for which to bargain; what is far more necessary is

the power to inflict a smashing, demoralising blow capable of removing from the beast struck the smallest interest in subsequent events. To effect this it is essential that the bullet should remain in its body, and not pass completely through it. If it remain within, the entire propulsive force behind it is felt by the creature against which it is directed; but should it penetrate the resisting body and pass on beyond it, threading its way through the unresisting flesh like a needle, the power which forces it through follows it, and is entirely wasted. To deal with this problem, especially in the cases of beasts of thin skin and great vitality, a variety of bullets have been invented capable of satisfactorily coping with any of them: solid and nickel-covered for hard-skinned animals of large size; hollow-pointed and side-split for thin-skinned ruminants and the large carnivora; and a variety of others too numerous to mention, from the sharp-nosed speciality of the ·280 Ross rifle, to the copper-capped deadliness of this and the various forms of Mauser and others.

But a consideration of great importance, and one which should in no case be lost sight of, is that of the weight of the weapon considered in relation to the physique of the individual by whom it is to be used. Clearly a heavy double rifle, such as many still in use, would greatly and painfully tax the powers of a small man of strength below the average, and might so weary him that at the crucial moment his powers of using it might be insufficient for the purpose. Double-barrelled

rifles, except in the case of the small, handy double ·308, are usually heavy by reason of the great reinforcement required at the breech; but I have always used them in preference to arms of the light magazine type, for I have held the opinion that, no matter how many cartridges your magazine may contain, the hunter armed with his double weapon is the better armed of the two. He has two shots in the delivery of which he can be as deliberate or as rapid as he chooses. There is no occasion for hurry as in the case of the magazine, and, to me, the most important consideration of all is that your second shot is delivered without the loss of a moment, or at times without disturbing the alignment which follows the necessary removal of the magazine rifle from the shoulder. I cannot, moreover, refrain from the view that, in the case of young and excitable men, the consciousness of a magazine full of cartridges upon which to draw produces a carelessness which may simply wound instead of cleanly killing, and may permanently impair the individual's shooting.

Personally, I have always proceeded on the principle of furnishing myself with one good, sound, all-round rifle, and holding a heavier second in reserve in case of emergency, and I think my views in this regard coincide with those of most of my contemporaries. For a long time my battery consisted of a double ·308 by Holland & Holland, which I found, during the fourteen years it remained in my possession, an absolutely perfect model of precision of workmanship. This, with

a double ·500 express, and backed by a double 8-bore firing a bullet of 1164 grains of solid lead, propelled by 10 drams of black powder, constituted my collection of rifles for big-game shooting, and they were supplemented by a good, stoutly built shot-gun and a rook-rifle for small antelope and large birds impenetrable to shot. In course of time I discarded the ·303 for the ·450 cordite, a magnificent weapon, and capable of dealing effectively with any animal on earth. This, however, I found extremely heavy to carry, and, in my final journey, I found that, so remarkably had the craft of the gunsmith advanced, I was enabled to effect the most satisfactory results with a double ·375. If I should again hunt big game in Africa, I would only take two rifles, a double ·850 and a double ·500, and these I have no hesitation in recommending to any one who may be contemplating a journey into the interior for sporting purposes. It is some years now since I used my old 8-bore, and I do not think, considering the immense power of the ·500 cordite rifle, that I should feel inclined to subject myself again to its appreciable recoil; but for all that I have a keen recollection of the comfort I have derived from the consciousness, in moments of uncertainty, that it was ready at my back, neither am I unmindful that on one occasion at least the old 8-bore undoubtedly relieved me from a situation of some precariousness. Let it not, however, be forgotten that the weapon weighed something over 19 lbs., and required some strength of forearm for its effective use.

Ammunition must be fresh. I do not know whether the last year may have produced a cordite impervious to the considerable variations of temperature inseparable from the African climate, but I fear not. That the efficiency of one's cordite ammunition is thus varied there can be no shadow of doubt, in fact I have had occasion to observe it on more occasions than one. I would, therefore, impress upon new-comers—and some old ones for the matter of that—the advisability of conveying as much of the stock of cartridges as possible in their original stout tin-lined ammunition case. On hunting days a sufficiency may be taken out for conveyance in the belts or bags, but on return the remaining rounds should be at once replaced in their original shelter, and not left lying about in the sun, or exposed to unnecessary heat. For road journeys, involved by the shifting of camp, enough ammunition can readily be stowed away in the pockets, or in a small cartridge bag, for all probable contingencies; but a most important consideration, and one I fear too frequently neglected, is the golden rule, not of keeping your powder dry, but of keeping your cordite cool.

Shot-gun ammunition is not nearly so susceptible to temperature, even when loaded with the now almost universally used nitro powders. A few hundreds of these should be taken loaded with No. 8, No. 6, and AAA shot, the last mentioned in wire cages. Of the three sizes mentioned No. 6 should predominate, for the excellent dove shooting which is often obtainable.

I make it a rule, although I am afraid it is one which will not commend itself to many, of invariably cleaning my firearms myself at the end of the day's shooting. I do not believe the African native hunter or gun-bearer, be his abilities and excellences as a tracker and skinner what they may, can ever be safely entrusted with this all-important task. The unpleasant experience of a friend of mine which befell him through his failure to observe this practice is a valuable object lesson. He had got up to buffaloes in swampy ground—fifteen or twenty of them—and had severely wounded a large bull. He pressed aside the top lever of his double ·400 to reload the discharged chamber when the barrels dropped off the stock, muzzle downward, of course, into a foot of mud. The missing fore-end was discovered on his empty-handed return to camp. His gun-bearer, who had been entrusted over night with the cleaning of the rifle, had forgotten to replace it at the end of that operation, with consequences which might have been most serious. When it is remembered that the morning start for most successful hunting days takes place by starlight, it will easily be understood how it was that the absence of the fore-end remained undetected.

In cleaning cordite rifles it is a good plan to use plenty of boiling water to wash out the barrels, dissolving about a quarter of an ounce of bicarbonate of soda to the quart of water. In applying this mixture, it is not always enough to pour it through, and allow it to run out at the

muzzle end; a very effective means of neutralising the corrosive gas of which cordite fumes consists being to cork up the muzzle, fill the barrels with the boiling solution of soda, and stir for a few seconds with a cleaning rod. This will satisfactorily remove all deleterious influences before the drying and greasing of the metal surface. Many lubricants are sold, as a rule at high prices, expressly to counteract corrosion in cordite rifles; but this expense may be avoided, and precisely the same result attained by stirring a dram of bicarbonate of soda into an ounce of ordinary vaseline with a flexibly bladed knife, and applying the mixture to the steelwork after washing it thoroughly as I have described. It should be remembered that as a rule the first shot from a well-cleaned rifle barrel is apt to travel a trifle higher than those which follow. Finally, when hunting, always see that one or other of your native companions is provided with an efficient cleaning rod.

I am a great believer in having in the tent at night a good serviceable, heavy revolver or automatic pistol. If predatory forms should take it into their heads to pay one a visit, it is much more quickly and quietly grasped in the confined, canvas-bounded space than a long cumbrous rifle, and its effect may be quite as satisfactory; but let me not be understood as advocating the use for this purpose of the small, silver-mounted, pearl-handled toys which I have seen in the possession of some hunters; these may be well enough for production in the exciting

scenes of a modern drama, and may satisfactorily cause the deaths of many persons to whom the knowledge of their use is but imperfect, but for Africa you want at least a ·450 Webley, or a ·455 automatic Webley & Scott. With either of these admirable and powerful weapons at hand he would be a nervous person indeed whose sleep was affected by dread of night prowlers.

We will now pass to the consideration of the camp equipment, the proper selection of which is so indispensable to comfort, and consequently to the preservation of health. Tents to-day can be obtained at a dozen great emporia, and there is perhaps little to say upon this subject on the whole. I suppose most persons who have used them will agree that the most satisfactory of all is that excellently designed speciality of Benjamin Edgington of London Bridge. In 1906 this maker manufactured for me a small one-man tent, the measurements of which were 7 ft. by 6 ft. 6 in. It was an ordinary double-roofed ridge tent, but made with that regard for lightness and efficiency for which Edgington tents are now so well known. This, with fly, poles of brass-jointed bamboo, pegs, mallet and cover weighed when dry only 55 lbs., and was therefore a reasonable load for one carrier. The curtain was made to lace up at each corner, a great advantage, which enabled admission to be afforded to the breeze no matter from which direction it blew. About a dozen stout hooks were firmly sewn on to the walls at each side, and were of immense use for hanging up all sorts of

things out of the way of the various insect pests which get into them if thrown upon the floor, whilst, in addition to the extra large curtain pockets, other smaller receptacles were furnished upon the ceiling and doors; the ventilator spaces were mosquito-proofed, and the strap-hooks for use on the tent-poles were of superior pattern and very serviceable.

For two men, however, and no hunting expedition should ever consist of more, a larger abode would, of course, have to be provided—I should think one measuring about 11 ft. by 9 ft. This would be much heavier than that already described, and furnish loads for two men at least, with a trifle left over to be added to the burden of some lightly laden carrier.

For my own part, for many years past I have made it a rule to hunt unaccompanied by any other European, and I fancy many experienced hunters will agree with me that the most satisfactory sport is thus obtained. Many have said to me, "Oh, but surely you would enjoy it much more if you had company—somebody to chat to in the evenings. How dreadfully dull you must find it by yourself!" To this I reply that if you are keen you have no time to be dull or bored during any portion of the trip. You are, as a rule, on the move from before dawn to nightfall. You turn in gladly about 8.0 p.m. You have a more or less numerous retinue of dusky followers, whose welfare both of body and mind engrosses you. Should you be acquainted with their dialect (or dialects) you have a rich

store of amusement in gaining your people's confidence, and learning the many useful and entertaining lessons of woodcraft and folk-lore which these good-natured children of the wilds delight to teach you, and, finally, you are face to face with Nature at her grandest and most impressive. If any other reason were wanting, it would be found in the fact of the extreme rarity of a really congenial and at the same time hard-working fellow-sportsman. You may meet a man in town or country at home three hundred and sixty-five times during the year, and feel that he is the most delightful person of your acquaintance. So he may be so long as he remains at home. But let him be your sole daily companion for a number of months in the interior of Africa, and if your friendship continue unimpaired yours is of a truth a rare enough case. I will not say more than this; but every man who has hunted or travelled with a companion of his own nationality and colour in the surroundings I am endeavouring to describe, will immediately comprehend my meaning, and realise to the full the difficult situations which so constantly arise. My advice, therefore, to persons contemplating hunting in pairs is to make separate camps, wide enough apart to render unlikely any encroachment of the one into the country shot over by the other. Meetings may take place once a week or oftener, when there will be far more to discuss than would arise if the association remained unbroken throughout. In these circumstances each man

would, of course, require a small tent of dimensions similar to the first described by me.

Camp equipment has now come to be so specialised that a very large choice awaits the prospective purchaser. There are numberless different systems of folding furniture, a bewildering selection of folding chairs and tables, and as for canteens of cooking utensils, their name is legion. But of all the systems with which in past years I have provided myself, that known as the X patent camp folding furniture is the most desirable and satisfactory. A selection of necessary articles comprises an excellent and really comfortable folding bed, with strong, yet light, wooden mosquito frame made of jointed hard wood, the sections secured together by means of short chains, and therefore not liable to be lost; a capital folding table, so contrived that the green canvas top is stretched by means of wooden slats, folding when not in use into a neat roll round the legs, which are carried inside it. These, with a combined green canvas bath and wash-stand, and a Rhoorkee chair, are all that one need actually take in the way of furniture; but should expense be no object, there are other small refinements designed upon the same system which no doubt go far to rob life in the wilds of many of the inconveniences inseparable from it. A reliable ground sheet should be of the same size as the floor of the tent when pitched, and a small piece of carpet, about 2 feet square, is a very comforting article to stand upon when changing one's stockings or removing or putting

on one's clothing. At the time of year in which hunting is pursued the nights are intensely cold, and the contact of a bare foot with the chilly waterproof ground sheet is by no means pleasant.

The mosquito curtain, of which two should be provided, is most efficient when made of the finest green net, and none but those of the smallest mesh should on any account be selected. There are many small insect pests in addition to mosquitoes against which it is necessary to guard, and among the worst of these is a tiny so-called sand-fly which seems to be endowed with a specially unpleasing power of penetrating mosquito curtains. If, however, by any lamentable oversight the net selected should not prove impervious to this pest, his attentions may often be checkmated by using the two nets together, one over the other. But in the provision of these necessary adjuncts to comfort, care should be taken as to the method of weighting them. The most efficient nets are those of which about ten or twelve inches repose upon the floor all round. At the bottom there should be a piping about the thickness of a black-lead pencil, but divided into small chambers 2 inches long and about 6 apart, and these should be filled with shot in such a manner that the netting lies evenly upon the ground sheet, and no portion of it is raised in the smallest degree above its surface. If the shot are not thus divided into compact little chambers, it speedily displays a tendency to run together, with the result that while the curtain round the foot of the bed may be properly

weighted, the further extremity may be in the air, affording ingress to all sorts of undesirable bedfellows.

The bedding and pillows should be carried in one of those admirable waterproof canvas contrivances called a Wolseley valise, than which nothing yet devised is "just as good." Made of stout impermeable canvas, it safely contains your three double Witney blankets, two pairs of sheets, and two pillows with their cases, and can be made to hold, in addition to your pyjamas, all sorts of odds and ends of clothing. On one occasion a Wolseley valise which had accompanied me on my travels for many years was actually dropped fairly into the Zambezi River, but upon being opened was found to have admitted so little water that it was scarcely necessary to dry anything. Care should be taken in the selection of pillow cases, which should be of the finest linen, and at least one pillow should be of the comfortable feather variety. I have found that the restfulness afforded by these in comparison to harder and less sympathetic stuffing, especially in cases of slight feverish headache, or other unimportant if troublesome ailments, has been very real.

An immense boon to the traveller on its introduction was the aluminium bucket canteen. This, in extraordinarily light and most portable form, contains every necessary for culinary and table use, from frying-pans, saucepans, and meat dishes to plates, cups and saucers, condiment boxes, knives, forks, and spoons. But although

the table contents of these excellent contrivances are all that may be regarded as strictly *necessary*, they are by no means calculated, for several reasons, to please the jaded senses of the tired and it may be feverish wayfarer when translated from the depths of the well-devised canteen to ordinary use on the folding camp table. Their capable but unlovely metal plates, which speedily show knife-marks that fill with grease and dirt; their cups; their unappetising knives and forks and spoons; their sauce and condiment boxes and bottles, all of which are guilty of undue intimacy with each other, resulting in a general intermingling of each other's contents, all these things completely divest the camp table of the neatness and prettiness which are never so highly appreciated as when they form a striking contrast to rough and ready surroundings.

Some few years ago I wrote a book[1] upon another portion of the Portuguese Province of Mozambique, in which what the press were pleased to call my sybaritic methods aroused much good-natured chaff among my friends both at home and abroad. I do not know if that book was the first actively to advocate decency in camp life, and the avoidance of what is called "roughing it," but this I do know, that the perusal of my views on the subject, and the surprising simplicity of my methods as described therein, gained me many imitators, among whom I number at least one whose relish for living in the wilds more like a native than a civilised being had procured for

[1] *Portuguese East Africa.*

him, to say the least of it, an unsavoury reputation. But, as I have so frequently stated and written, no pains should be spared to provide in the camp as attractive and well-laid a table as one would sit down to at home, with clean glass, snowy-white linen, and well-cleaned, glittering silver. All that is required at first is a little system and supervision; by dint of these, and servants of average intelligence, the "butler's department" should soon run by itself.

There is probably nothing more nausea-provoking than certain stages of low fever and what is called sun-headache, the latter being possibly a more successful robber of appetite than anything of the kind with which I am acquainted. But it is precisely in succumbing to disinclination to eat that the demon of fever is usually invoked. Yet whilst in this state—one, be it remembered, in which practically everybody visiting the country sooner or later finds himself—can you not imagine the difference awakened in your feelings by the contemplation of a disgusting metal plate of greasy soup, with a drowned cock-roach and several feathers floating in it, reposing upon the dirty bottom of an upturned provision case on the one hand, and on the other a neatly laid table with its well-washed cloth, clean tumblers and nicely polished china? To ensure these advantages all days and every day is a matter of the greatest ease, and one which should be the aim of every traveller who values his health and his hopes of success.

A case should be provided called the "service

box," which, in addition to crockery and glasses, should contain all the bottles and tins of provisions actually in use. For the plates and dishes wooden battens are nailed across it sufficiently far apart to contain them standing immovably on edge, one in front of the other, whilst for the wine-glasses and tumblers a small wooden box fitted with a lid, large enough to hold the required number, is secured by means of screws to the bottom of the service box, and divisions of the well-known soft, brown, tubular packing-paper, if possible lined in turn with rather a thick layer of cotton wool, contrived just wide enough to divide them from each other. This small box can thus be made to convey in complete safety all glassware, including candle-lamp glasses. Leather holders are disposed round the interior for the reception of knives, forks, and spoons, while the centre, also divided into compartments of varying size, can be made to accommodate rigidly the open tins, bottles, and the cruet, the whole being covered in by the soft folds of the table-cloths and dinner napkins.

The provision cases themselves should be of that special light wood provided by Messrs. Lawn & Alder of Brackley Street, Golden Lane, E.C., who know exactly what to provide in the nature of expedition commissariat, and also how to pack it. Their provision cases combine great strength with phenomenal lightness, and are often made in nests of three or four so that as they are emptied they can thus be carried one inside the other. I do not think, however, that this ad-

vantage counterbalances the added weight of the empty case. In my experience I have found it preferable to purchase cases of one size, namely, 2 ft. by 1½ ft. by 1 ft. For two persons hunting together about ten such cases would be required, which should be numbered consecutively, and it is a good plan for each person to possess a numerical roll of them containing an exact inventory of the contents of each. At the end of the day's march, after the selection of the camping ground, the head servant should be required to train the carriers before retiring to their shelters to set the cases down facing the tents in numerical order with padlocks to the front. This practice, into which the men rapidly fall, saves much trouble and delay when something is wanted in a hurry after darkness has fallen.

The camp should be lighted by those excellent wind-proof candle-lamps known as the "Punkah," for which several spare glasses and tops should be taken. These must be provided with composite candles, not wax, on account of the latter's well-known tendency to soften and run into all sorts of shapes on exposure to the smallest heat. For purposes other than those connected with the table, folding tin candle lanterns with talc slides are the best.

For use in standing camps, two or three large canvas buckets will be found most useful, as also several canvas water-bags of various sizes. Two of these latter should be of a size capable of holding two gallons of water, and be furnished with a small tap for drawing off the

liquid without undue disturbance. They are filled daily with boiled and filtered water, for which purpose one of the portable Berkfield "Traveller's" filters should be provided. As the contents ooze very slightly through the texture of the canvas and meet the breeze outside, the water is cooled to a degree which persons unacquainted with the practice would scarcely believe possible. For the road, or the hunt, the best water-flask is that made of aluminium covered with felt, holding about a quart, and with a strap to sling it over a native's shoulder.

Of course, when a stay of several days is made in one locality, much may be done to heighten the comfort of the traveller's surroundings. For instance, a pleasant, shady site for the tent having been selected, the fly, instead of being employed, for its normal purpose, can be pitched as a continuation of the main structure, and as a prolongation from the front door. This is done by cutting a long straight bamboo to serve as a ridge-pole, and a forked support to hold it horizontally, the tent-fly being thrown over it and secured by its own pegs. This affords a separate shelter under which the whole of the loads may be conveniently placed, the centre being large enough for the chairs, table, and other articles. Here meals may be partaken of, guns cleaned, and rest enjoyed without exposure to the nightly annoyance of the heavy dew which is such a striking feature of the African winter season. In such a camp as this, for the occasions on which laundry

operations are in progress, a couple of dozen small spring clothes-pegs are necessities and, used with the indispensable ball of strong string to serve as a clothes-line, prevent the linen from being laid to dry in the grass from which it is practically certain that it will come back full of ants, microscopic ticks, and other unpleasant forms of insect life.

At the height of the winter or dry season, it is at times necessary, in traversing unusually waterless portions of the country, to carry a supply of drinking water sufficient for one or two days. For this purpose one or more of the useful, wickered aluminium demijohns obtainable at Messrs. Lawn & Alder's and elsewhere, are indispensable, and great care should be taken on no account to permit the key for a moment to leave your possession.

With regard to clothing, it will be found most convenient to carry it in a good-sized canvas lock-up hold-all, which should be absolutely waterproof in fact as well as in reputation, and provision must be made for the exigencies of two distinct climates. There is, to begin with, the sunny warmth of the daylight hours, when the thermometer may ascend to 90° or 95°; then there is the sharp cold of the brilliant starry nights, when it may easily fall to 45° or lower. For hunting, marching, or daylight work nothing, to my mind, is so satisfactory as a shirt or "jumper" of improved khaki-coloured, sun-resisting cloth, about the same thickness as good quality khaki, the same colour, and worn over

a cotton or silk-and-cotton under-shirt; with this a pair of easy buttonless breeches, fashioned somewhat after the style of football knickers, of the same material, will be found very comfortable, and are secured by a stout belt provided with a small pouch for carrying a lancet, a small quantity of permanganate of potassium in case of snake-bite, and other small necessaries. The extremities should be clothed in putties and light but well-made ankle boots. The "jumper" should be made with a pad 3 or 4 inches wide down the back to protect the spine from the sun; it should be collarless, provided with waterproof pockets, and a dozen or so holders for *reserve* cartridges. As soon as the wearer's arms are able to bear the sun's rays without discomfort, he should get out his scissors from a well-furnished housewife, and cut off the sleeves above the elbow. Nothing in the nature of a coat should ever be worn on the march or in the field, it is entirely unnecessary—a mere useless encumbrance. For evening wear, a good hard-wearing suit of stout Harris tweed is unapproachable, a soft tennis shirt of Viyella or some similar material, and easy brown leather ankle boots, which are superior to shoes or slippers as they keep mosquitoes and sand-flies from biting your ankles, especially if you stuff the bottoms of your trousers into the projecting tops of your socks. A warm, well-lined overcoat must on no account be forgotten; it will be required both for ordinary night use in camp, and also for sitting up over a kill for

lions and leopards. Great care should be taken to provide suitable footwear for marching. I have in my possession a pair of ankle boots in which I have traversed on foot nearly 2000 miles of the African continent, and they are quite capable of carrying me another 500. They were made by Messrs. M. Wildsmith & Sons of 17 Jermyn Street, and are, I think, the most perfect marching boots it would be possible to devise. For circumstances in which exceptional quietness is indispensable, the hunter can provide himself at any place on the East African coast for the sum of two shillings with a pair of Indian rope-soled calico shoes of great lightness and strength, which will be found of great use. Socks should always be worn with suspenders to prevent them from working down and chafing the feet. I have found the most satisfactory socks for African travel to be those of seamless natural grey wool, which are not liable to irritate the skin, and are very absorbent and good. Their tendency to shrink renders it desirable to supply more than would usually be necessary; thus, for a two months' expedition, I should recommend not less than two dozen pairs.

An important question is the supply of proper and well-fitting head-gear. As Zambezia is, on the whole, a forested country, let no inducement prevail upon the intending visitor to provide himself for travelling or hunting with anything in the nature of a helmet, in which it is impossible to stalk properly, to penetrate jungle, or to run. For these purposes his best, safest, and most

efficient head-covering is the excellent, soft felt double terai hat. This clings to the head in the densest undergrowth, and affords the fullest protection from the sun. On the wider plains, where at times the heat is rather trying, great relief may at once be obtained by filling the crown with fresh green grass or leaves—care being taken to see that no pernicious insects find their way in at the same time. For night use, one or two comfortable soft caps should be included, and, for tonsorial purposes, a pair of barber's hair-clippers.

With regard to the many miscellaneous articles of equipment with which it is necessary to be furnished, the importance of a really serviceable field-glass is difficult to exaggerate. I know opinions vary upon the best type for the purpose, but personally I have found that a single Zeiss reflex glass, magnifying eight diameters, is better than the binocular glasses now so generally carried. In appearance the glass I have carried for some years with the greatest satisfaction looks like half an ordinary pair of Zeiss glasses, which is precisely what it is. Carried in a small, neat case, it is so light that it need never be out of the hunter's possession, and comes up to the eye in one hand much more easily than a pair of glasses, and never needs readjustment. A reliable compass may be of great service, as also an electric torch with one or two spare dry batteries.

Messrs. Burroughs, Wellcome & Company of Snow Hill, E.C., pack most excellently arranged and selected medicine chests of very small dimensions for travellers to any part of the world,

it being only necessary in ordering to specify the district it is intended to visit; but in addition to the contents of these conveniences it is desirable to carry a good stock of common Epsom salts for the needs of the native carriers and servants.

While I am on this subject, let me say a few words upon that most important of matters, the care of the feet. This is a duty far too often relegated to chance, and heavy have been the penalties which I have seen paid by the careless. Of course chafes and blisters usually, but not always, make their appearance after the first or second long march, and it is, therefore, a good plan to harden the feet for some days before the expedition starts. An excellent way of doing this is to soak them nightly in a bucket of hot water containing about a pound of common rock salt and a little alum in solution. The feet should be immersed when the water is so hot as to be hardly bearable, and remain therein until it grows cool. They should be allowed to dry slowly, and not be wiped with a towel. On starting in the morning excellent results are also obtained by soaping the feet all over with a good coating of ordinary toilet soap and water.

Should, however, blisters make their appearance in spite of these precautions, and despite most carefully selected boots and socks, they must at once be dealt with lest worse befall. In my early days I was once confined to camp for ten days, and a shooting trip was completely spoiled, by marching upon a blistered foot, and my case is by no means a singular one. If the blister be a small one

and unbroken, soaking it in very hot salt and water two or three times in the course of the evening will often lead to its absorption; but if the skin be broken, or upon the point of breaking, the best course is relentlessly to strip it off and lay bare the flesh beneath. Upon this a series of cold cloths soaked in a strong solution of permanganate of potassium should be placed. The effect of this rather severe treatment is to produce a new if somewhat discoloured skin on the tender part, which, with twenty-four hours' rest, will usually admit of the resumption of the journey.

For cutting up game several hatchets and large knives are required. In selecting these, highly tempered steel is to be avoided, as the softer metal is the easier to resharpen. The knives which I usually employ for finishing off and skinning antelopes are long-bladed cheap knives similar to those used in the kitchen for cutting hams, sides of bacon, and joints. They must be provided with well-fitting leather sheaths, and carried daily by the gun-bearers. Several pairs of scissors of different sizes are of great use for all sorts of purposes, whilst needles, buttons, and a supply of good strong pack-thread must on no account be omitted.

For the collection of small nocturnal mammals a few capable steel traps are useful. These on being set should be secured by a yard or two of strong brass chain well pegged down; I find brass better than steel, as it is rust-proof, and cleaner. Care should be taken to see that they

are not placed, as the negro left to himself will be almost certain to deposit them, in the centre of the native path, or unpleasant results may ensue. Whilst we are discussing the subject of ironmongery, let me strongly recommend the provision of a hammer, and a pound of one-inch nails. These are most useful for repairing damage to the packing cases, strengthening native shelters for the men, and many other purposes.

Of course, owing to bad weather, fatigue, or other causes, a day will from time to time be spent in camp, and therefore, as well as for occasional unemployed evenings, a few good sound books, together with note-books and writing materials, must be included in the personal baggage. For my own part I always take books relating to the sport I am following at the moment, as well as one or two volumes of fairly solid reading; but I would impress upon my readers the desirability of taking nightly the most copious notes of their experiences. Nothing should be regarded as too trivial for inclusion in the journey's record, and the careful observer will reap a rich harvest in after years as he slowly turns over the leaves of the story of his African experiences.

As a few final words of sage counsel, I would recommend hunters in Africa to be guided so far as possible by the following scraps of valedictory advice:—

Avoid cold bathing from the first day of your arrival in the country; warm baths only should be taken.

Never fish within 10 feet of the water's edge,

unless you are at least 6 feet above it. Crocodiles are everywhere.

Never pitch your camp in or nearer than 500 yards from a native village, and your prospect of contracting malarial fever will be greatly lessened.

Endeavour, in so far as may be possible, when changing ground, to select the site for your camp not later than about 4.0 p.m. This enables everything to be comfortably arranged, and gives your tired carriers plenty of time to build their shelters for the night.

Never set out for a day in the field without a substantial early breakfast, and a small supply of food, and water, cold tea, or other non-alcoholic beverage in your water-bottle.

Before leaving your camp for a new one, never omit to make a personal examination of the ground to satisfy yourself that nothing has been left behind. You will soon be surprised at the number of small articles of the most precious description recovered at the last moment which you would otherwise have irretrievably lost.

Having concluded your examination of the over-night camping ground, accompanied by your gun-bearer, push your way to the head of the column, leaving your servant to act as whipper-in, and make a point of carrying yourself a light rifle in anticipation of early morning shots. You should march about a quarter of a mile ahead of your carriers.

All converging paths not taken by your

expedition must be "closed" in native fashion, in order that none of your followers may be separated by mistake from the main body. This is done by scratching a line or two across them with a stick, or throwing down into them a fresh bunch of leaves or a bunch of grass.

When hunting across country, and some distance ahead of such natives as may be accompanying you, it is a safeguard, where the grass is thick, to take a few stems in your hand every hundred yards or so, and bend them over in the direction you are taking; this signal is well understood.

When nearing game and speech is impossible, the existence in the line of march of thorns, fallen timber, a column of ants, or anything it is necessary to step over, is conveyed to the person following behind by lightly slapping your right thigh twice.

On the road with carriers fully laden, it is a good plan to allow them ten minutes' rest after each complete hour's march. This delay is of little consequence, and is much appreciated by them; but never allow them to sit down and rest without permission.

Never allow any member of the expedition, under any pretext, to appropriate without payment anything he may fancy in the native villages or gardens. It is a weakness of which they are not seldom guilty, and should on all occasions be most sternly repressed.

Returning to the game of Zambezia, those who have had the patience to peruse these pages,

Note: Perhaps a freight car could hold all the duffle listed in this chapter.

and who may be contemplating a shooting excursion into the remoter portions of Portuguese East Africa, may well be asking which particular district they should select as the scene of their sport. My reply to this is that one of the districts north of the Zambezi is calculated in the present aspect of the country as a whole to give the best results. Personally, if I were to return to Portuguese East Africa for a final sojourn in the wilds, I should make Quelimane my base of departure into the interior. Throughout this little-known region practically every animal described in this book may be found, and in some of the divisions, notably in Lugella, Boror, and the Alto M'lokwe, very little shooting has taken place. Moreover, although game is abundant, I am unaware of the presence of tsetse flies, whilst for those to whom such considerations appeal, the scenery of the interior of this attractive district is beautiful and striking in the extreme.

The courses of the Zambezi and Shiré Rivers have been for so many years frequented by steamers and barges that, except in one or two circumscribed areas, the game has largely retired; but above the confluence of the Shiré fine shooting may be found practically all the way, upon the north bank, up to the Lupata Gorge. South of Tete the extensive, healthy region of the Barué, described in my book *Zambezia*, is an excellent game country into which an ideal hunting expedition may be undertaken, whilst a number of splendid types, exclusive, however, of elephant and rhinoceros,

as also magnificent and unlimited wild-fowl shooting, may be obtained in the Luabo territory, immediately to the south of the southernmost branch of the Zambezi delta. All these wide areas fall within the vast region of Zambezia, and there are, of course, many others wherein moderately good sport can unfailingly be found. But what attracts me in this little-known portion of East Africa is that here the country and the native are largely unspoiled. Here you still receive, if you deserve it, the old-time courtesy traceable, doubtless, to the centuries of Portuguese occupation, through which the place has come down to us in its still attractive form. There is still something in the very languorous warmth of its tropical climate, and the aspect of the quaint old houses, redolent of Livingstone's earlier journeys, which cannot fail to appeal to the imagination. It is not simply a matter of drawing a cheque and finding your arrangements falling automatically into stride. Here arrangements are made in a different way, and occasionally at the expense of some little time and patience; but I have never met anybody who grudged of either what small meed the exigencies of his journey may have cost him.

I have known Quelimane intimately since 1896. Here I have spent much pleasant time, and my recollections of the place are among the most delightful among my African memories. Moreover, Quelimane displays no tendency to change like those struggling centres to the southward, torn as they are yearly limb from limb

*Photo by C. A. Reid.*

*To face p.* 316.

RESULTS OF A MONTH'S HUNTING.

in the struggle for commercial supremacy. My last visit to this small haven of rest, seventeen years after the date at which I first beheld it, showed me the small group of brightly coloured houses nestling cosily in their bower of luxuriant tropic greenery, unchanged and apparently unchanging. There were many gaps in the ranks of my old friends, it is true, but the new-comers appeared to the full to have assimilated the courteous hospitality of tradition, and thus, as I have just stated, Quelimane appeared to be little changed from what it was when I knew it first in the distant days of the early nineties. There are, I think, but few settlements situated elsewhere of which the same can with truth be said.

For the convenience of new-comers, I have appended hereto a list of provisions sufficient for two men of ordinary wants over a period of about two months. Wines and spirits have been purposely omitted, as upon this point everybody has his own ideas. I may perhaps add that the light, harmless, and very excellent table wines of Portugal, readily obtainable upon the coast at most moderate prices, appear to me to be so good as to render the importation of this detail from Europe entirely unnecessary.

## APPENDIX TO CHAPTER XIII

List of provisions and general necessaries for two persons, calculated for a hunting trip of about two months, wines and spirits excluded.

| | | |
|---|---|---|
| 2 | dozen | Rose's Lime Juice Cordial. |
| 1 | „ | Packets Price's London Sperm Candles. |
| ½ | „ | Orange Marmalade. |
| 1 | „ | Assorted Jams. |
| 2 | „ | Ideal Milk. |
| 2 | „ | Tins Plain Lunch Biscuits. |
| 1 | „ | „ Butter (Harmen & Zoom). |
| 2 | „ | „ Westphalian Sausages (Crosse & Blackwell). |
| 1 | „ | Brown & Polson's Corn Flour. |
| 8 | „ | Assorted tins Fruits in Syrup. |
| 2 | „ | Assorted Potted Meats. |
| 1 | „ | Tinned Salmon (Lazenby's). |
| 1 | „ | „ Lobster (Lazenby's). |
| 6 | „ | Safety Matches. |
| 2 | „ | French Beans. |
| 2 | „ | Tinned Green Peas. |
| 2 | „ | Asparagus. |
| 1 | „ | Quaker Oats. |
| ½ | „ | Baking Powder. |
| 1 | „ | Cooking Lard. |
| ¼ | „ | Worcester Sauce (large size). |
| ¼ | „ | Cerebos Table Salt (large size). |
| ¼ | „ | Pickles. |
| ½ | „ | Chutney. |
| 1 | bottle | Cayenne Pepper. |
| 8 | „ | Tabasco Sauce. |
| 1 | „ | White Pepper. |
| ½ | dozen | Lunch Tongues. |
| 2 | tins | Apple Rings. |

4 lbs. Coffee.
8 tins Colman's Mustard.
7 lbs. Chopped Sugar.
½ dozen Assorted Afternoon Tea Cakes (Swallow & Ariel Brand).
½ „ Red Currant Jelly.
2 tins Curry Powder.
½ dozen Pea Flour.
½ „ Van Houten's Cocoa.
4 lbs. Ridgway's Tea.
50 „ Potatoes.
40 „ Onions.
25 „ Flour.
25 „ Rock Salt, for curing skins.
25 „ Alum Crystals, for curing skins.
6 pckts. Sunlight Soap for laundry purposes.
1 side Bacon.
20 lbs. Soft Mauritius Sugar.

# CHAPTER XIV

## BIRDS AND BIRD SHOOTING

In that portion of the preceding chapter dealing with the question of arms and ammunition, I recommended the provision of a fair supply of shot-gun cartridges. For these, in many parts of Zambezia, much use can be found, not only to provide desirable variety in the daily diet of the party, but some variation in the character of the sport itself.

Scattered over the face of the country there are large lagoons, swamps, and marshes populous with wild-fowl of every description, from the immense unwieldy pelican to the delicate painted snipe. In the neighbourhood of the larger villages two or three different kinds of guinea-fowl are plentiful, as are the pretty familiar turtle-doves, fruit-eating pigeons, and other birds; whilst the forest, especially where it breaks up into grassy glades, is the home of the francolin and the bustard.

On the Zambezi itself, and throughout the various mouths of its delta, wild ducks are found in such astonishing numbers that in one morning's or evening's shoot a fairly large canoe could easily be filled with these sporting and savoury birds. About the flighting time, that is to say,

from about an hour before sunset until night has fallen, they come over, flying about 40 yards high in small assemblies of from ten to thirty or forty; and on many occasions, so rapidly has flight followed flight, I have wished that I had been possessed of a pair of guns instead of my trusty old double 12-bore only. The variety to which I am referring is the small whistling duck commonly called the "Tree" duck from the circumstance that these birds readily alight upon the tree growths by which nearly all African waters are so consistently surrounded. On one occasion, while I was the guest of one of the British gunboats which some years ago cruised about the waters of the lower Zambezi, the commander and I killed between us over seventy of these birds during one single hour of shooting. The number mentioned was that of those actually gathered, and I fear that a considerable number in addition were of necessity lost.

It was a glorious evening in June, and H.M.S. *Herald* was "tied up" for the night on the southern bank of the Kongoni or Inyamissengo branch of the Zambezi delta a few miles below the point at which it receives the now well-known Chinde channel. We descended into the small dingy, put the arms and ammunition on board, and were soon travelling rapidly down stream propelled by a muscular Sidi-boy. The river here is very wide, and, being above the mangrove belt, the banks were covered with luxuriant and striking vegetation. Here a graceful grove of waving coconut palms marks the plantation of a half-

caste Portuguese proprietor; farther on a mass of forest trees, their riverward branches thickly matted with grey, beard-like orchilla weed, and in the distance the rounded masses of the deep green, majestic mangoes; wild bananas, baobabs, lliana-entangled African teak trees, and a profusion of other interesting growths too numerous to mention.

My host was landed at a point where a small, dry, grass-overgrown creek emptied the waters of the rainy season into the river, and a similar post was found for me on the other side. We had not long to wait.

As the golden light of the waning afternoon threw long shadows upon the tranquil water, the advance guard of the "whistlers" came in sight round a corner, and for over an hour thereafter the firing on one side of the river or the other was almost continuous. The only varieties we secured apart from the ducks referred to were three spur-winged geese, and one or two teal and pochard. There was great glee that night among the blue-jackets of the lower deck when the toothsome birds came to be distributed.

The following morning, accompanied by two light native canoes carried upon the backs of their respective owners, we left the ship at an early hour, and pushed our way through the drenching dew to a large marsh or swamp lying several miles to the south of the main channel of the Zambezi.

I do not think any person who had not had the experience would realise how intensely wet he could get in forcing his way in the early morning

through the chill, dew-drenched grasses of tropical Africa. The large bunches of seed-vessels, all roped together by exquisitely glittering strands of dew-bejewelled cobweb, discharge cataracts of icy water upon one, and, such is the volume of moisture they can contain in the cases of the taller cane-like grasses, that one is often completely drenched to the skin in less than the first mile. It does not, however, take the rapidly increasing heat of the sun very long to remedy this, at worst, but temporary discomfort.

But to continue my narrative. In due time, and with the inevitable soaking, we finally reached the marsh, I having come off better than the rest by unostentatiously marching in the rear, thus coming into contact with grass already rubbed partially dry by the persons or clothing of my immediate predecessors. Our further progress was here barred by the usual surrounding belt of reeds, so, as the piece of water was of an irregular oblong shape, it was decided that one of us should get afloat at each end, and we should thus be enabled to keep the wild-fowl as long as possible on the move between us. My companion thereupon set out for the lower end, and, in order to give him time, I seated myself upon my canoe and waited. After the lapse of about half an hour, judging that he must about now be reaching his starting-point, I gave orders to push the canoe quietly through the high spear-grass which hid the water from us. Very gently this was done. I seated myself in the bow, the proprietor pushed off, and we dragged our way as quietly as possible

through our screen of swishing reed stems. Open water, or at least water as open as these marshes ever possess, soon appeared. In size the sheet was perhaps about a mile and a quarter long by about 600 yards wide, and I speedily made out a satisfactory number of ducks of various kinds, spur-winged geese, hosts of herons, cranes, and storks, with the usual throng of dabchicks and shore-birds. Luckily, as I emerged from the reeds I was hidden from observation by a thin bed of low papyrus rushes behind which I could reconnoitre unsuspected.

With the exception of a narrow expanse of unruffled water in the middle, the marsh or lagoon was covered over with the pretty, pale blue water-lily so common in this part of Africa, and in between the great, flat green leaves, almost as though outlined by it, a curious, lettuce-like water growth which has been not unaptly described as a sort of giant duck-weed. But popping up all over the surface one sees innumerable heads of wild duck, of geese, of widgeon and teal. Peering impatiently towards the farther end, I find that my friend the commander is invisible by reason of a bend in the marsh which conceals him from view behind a group of wild date palms against whose greenery, like so many white specks, the snowy forms of a score of egrets are discernible.

At this moment a quick double discharge, sounding very far away, relieves me of further anxiety, so I get ready for the birds his shots may drive over me. Several more shots are heard in rapid succession, but the birds in my vicinity,

which are large in size and of a dull chestnut colour, betray little or no uneasiness. Had they been whistlers they would have been gone already. At last a small flock of the latter variety are seen flying very high over the middle, and passing me far out of range circle once or twice and gracefully execute a *vol plané* down into the water at my end. At the far extremity of the marsh there are many varieties of wild-fowl in the air, and just as I am about to give orders to push along the edge of the reeds, about a dozen spur-winged geese flying low, with their peculiar, deliberate, distinctive wing stroke come straight from the sound of the firing in my direction. Changing the cartridges quickly for No. 3 shot, I cower down uncomfortably in my uncomfortable seat. On they come, nearer and nearer, not an inch over 25 yards high. Seventy yards, sixty, fifty. Ah! the leader has seen me, and widens out towards the centre. I take number four in the line, and down he comes to my right, the left barrel failing on number five, although I distinctly hear the sound of the shot through the wing-feathers. These spur-winged geese are extraordinarily hard birds; the amount of shot they will successfully carry away with them is sometimes amazing. We gather the fallen one and push along. Now the red ducks get up in twos and threes, and in ten minutes I have collected a round dozen, and lost—and missed—half as many more. At this point I congratulate myself on having stuck to the edge, for, doubtless disturbed by the firing in some adjacent water, several numerous flocks of whistlers appear, one

of which, driving past me in a round mass and at about 35 yards, gives me three for my two barrels. Things now begin to grow very animated; I can hear the other gun having an excellent time, and the birds, now fairly on the move, are satisfactorily divided between us. Still they come, red duck, black duck, whistlers, teal, shovellers, and sheldrake. The geese, as is their invariable habit, abandon the locality on the first alarm, but, in spite of that, about an hour later when firing ceased, it was found that between us we had gathered in almost as many birds as upon the preceding evening, to say nothing of a fine hare picked up on our way back to the ship.

In the neighbourhood of the villages, especially of those more remotely situated, and sufficiently well established to possess in their vicinity extensive areas of maize and millet gardens, I have seen guinea-fowls literally in hundreds, and so tame that, having secured a brace or two, all desire for further shooting left me. It would have been no better sport than taking a gun into a well-stocked fowl run. But putting aside the now rare occasions upon which these birds are encountered in these immense numbers, there are few neighbourhoods in the interior where the peculiar morning and evening call of guinea-fowls may not be heard at those times of day. They are not as a rule difficult to flush unless they have been much shot, and afford a fine, satisfying mark as, with a veritable thunder of wings, they rise boldly into the air. Guinea-fowls are extraordinarily local birds, and cling with a strange

pertinacity to a given area, waxing within it both numerous and fat; and even after their haunts have been discovered they may, unless ruthlessly slaughtered at the outset, be made to yield a brace or so occasionally without manifesting the least anxiety to change their quarters.

When I resided some years ago at Mozambique, I lighted accidentally one day upon such a colony of unsuspected guinea-fowls which were always to be found within measurable distance of a point on the neighbouring mainland, which, if I remember rightly, was called Sancoul Point. Nobody else knew of the presence of these birds, and, as shooting of any kind was practically unobtainable—if one except shore birds, and a few duck in some marshes 8 miles away—I kept my discovery carefully to myself. About once a fortnight I would go over and help myself to a brace or two, upon which the eyes of passers-by would on my return grow big with surprise, but although a sharp look-out was maintained for a long time, and I believe I was once followed, the locality of my preserve remained a profound mystery until my departure. This was a very necessary precaution as, had I once afforded the smallest clue to the whereabouts of the birds, all the Portuguese possessed of a shot-gun would have swept in a cloud through the unsuspected refuge, and not a single guinea-fowl would have been left either for me or for anybody else.

In Zambezia there are three kinds of these birds which, eschewing scientific names, I will call

the blue-helmeted, the yellow-helmeted, and the crested varieties. Of these the last named is by far the handsomest. There is at all times of year a wonderfully bright, almost metallic, sheen on his dark, steely-grey feathers, but during the spring and early summer his brilliancy of plumage seems to redouble, an effective majestic touch being imparted by the glossy, jet-black crest of feathers which adorns his shapely head. I do not think the crested variety is quite so delicate a table bird, nor does he reach to quite the generous dimensions of his plainer kinsfolk; what is lacked in size and succulence is almost atoned for in brilliance and beauty.

The bustards are not very numerous. The only one I have obtained—or indeed seen—being the handsome, black-bellied type; yet, when it is remembered that in portions of the country not very far south of the area we are considering there are at least six or seven others, not to mention the enormous giant bustard, which will often turn the scale at five-and-forty pounds, it would appear highly probable that, however sparsely, some of these may have penetrated to the banks of the Zambezi.

Bustards are most frequently seen in grassy glades in the early morning and late afternoon. They are extremely shy, and are most frequently flushed within range when one is unprepared for the opportunity. I came very near to losing one of the few of these birds which I have shot through the larcenous propensities of a white-throated fishing eagle one evening while awaiting

the flighting duck on the upper waters of the Pungwe River.

The bustard flew over my head, and falling to my shot about the middle of the stream, began to drift slowly down on the current as my canoe put out to gather it. The frail craft had certainly not made five yards in its direction, however, when the fishing eagle, which I had already observed perched upon a large tree on the opposite side of the river, swooped down and actually seized my bustard, having paid not the smallest attention to the report of the gun. I was only loaded with No. 6, but the eagle's stoop brought the great bird into easy range, so I fired both barrels at the thief, and must have given him some painful food for thought. He did not come down, but was so perturbed by the stinging he received that he fortunately dropped the bustard, which my dusky retrievers duly recovered.

I have on several occasions observed among the great birds of prey an astonishing disregard of danger from the moment that their attention has become concentrated upon an object likely to offer something particularly dainty in the nature of a meal. Especially is this peculiarity noticeable in the cases of the crested eagle, the tailless bateleur eagle, and the handsome, cheery bird whose unlawful designs upon the bustard I have just recounted. Usually, with the exception perhaps of the last named, one will seek in vain to stalk them upon their roosting trees. They are up and away upon the first hint of

approaching danger. But if they should be hungry, and you should happen to have shot something that attracts their attention; or if, at your feet almost, they should espy a favourite bird or animal, they will on occasion come straight down and, catching the coveted morsel in a powerful talon, get them gone before the astonished onlooker has fully grasped the significance of the rushing sudden swoop. Such of my readers as have had the patience to peruse the preceding chapters will already have noted two examples of this peculiarity observed by me in the larger raptorial species, and, although I do not remember to have read similar experiences recorded in the works of other hunters, the propensity referred to can be by no means an uncommon one.

Eagles are, of course, soulless, cruel creatures, but I never kill one if I can possibly avoid it, first of all because they are such invaluable scavengers, and, secondly, because my admiration for their grand, wild, expansive existences is so real and deep-seated that I would not willingly curtail them by so much as an instant. Who among those who are compelled to make their way about the wilds of Africa on foot has not, as the burning afternoon wore on, and, weary, travel-stained, and athirst he has wondered if the long day's march would never end, glanced wistfully upward into the blue vault and followed with envious eyes the easy, graceful, effortless flight of one or other of the great African eagles sailing majestically in vast circles without

the motion of a wing or the tremor of a feather? I do not know who would wish to bring to a close so joyous and space-annihilating a life as this. The specimens at which one gazes through the great barred cages in the Zoological Society's Gardens always fill me with the deepest commiseration; I pass their narrow lodging with hastening steps, wondering vaguely what the inmates' feelings would be did they but realise one tithe of the grandeur of the life they have missed.

The three eagles I have mentioned are, I think, the largest, most powerful, and most impressive among Zambezian birds of prey. Opinions differ as to which may have the most claim to be regarded as the handsomest among them, but my own bias is all in favour of the highly ornamental, if somewhat gaily marked, loud-voiced fishing eagle. The head, neck, breast and shoulders of this fine example are of snowy white, forming a dazzling contrast to the sombre chocolate brown and black of the remainder of his colour scheme. I once possessed one of these birds, which was presented to me by a German friend, having, from some cause or other, sustained a fractured wing. This bird—a female—became very tame, and, when once her passionate interest had been successfully divorced from my fowl-run, could be trusted practically without supervision in the gardens. One day I heard this eagle giving tongue in a state of extraordinary excitement. Her piercing, indescribable cries rang through the premises

in a most deafening manner, and, going out to ascertain the cause, I heard them repeated like an echo from above. At that moment a large shadow flitted across the garden, and I became aware that Francisca was deliberately encouraging a follower. After some preliminary circling there was a rush of wings and the stranger alighted some few yards from the crippled captive. Both then threw back their haughty heads and made the whole surroundings ring with their cries. What would have happened had they remained undisturbed I have, of course, no means of knowing, but, unluckily, attracted by the unusual vociferations, a servant rushed out and, before I could prevent him from doing so, put the bold stranger to flight. Francisca made unsuccessful and most pathetic efforts to follow, and did not for some time regain her wonted composure. So far as I am aware, the visitor never returned.

With the crested, variously called " warlike " and " martial " eagle, I have had less to do. I remember when I was residing at Zomba in the Nyasaland Protectorate in 1894 there was a wretched-looking, half-starved and utterly miserable specimen of this splendid type confined in a small wire-netting enclosure in the back premises of the Government buildings. This unfortunate, whose air of unspeakable dejection never failed to arouse my compassion, was said to have become sufficiently tame to be reconciled to its somewhat squalid surroundings, an allegation for which, however, there was little enough apparent

justification. Even in captivity, with the inevitable accompaniment of bedraggled feathers produced by its narrow quarters, this poor semblance nevertheless possessed some small remnants of its former majestic appearance. Feathered all the way down to the talons, the prevailing hue of these birds is a dark, slaty grey, turning to pale grey on the breast. The head, surmounted by its short, gay plume, is dull black, whilst the fierce-looking hooked beak is of dark yellow. These birds prey upon all sorts of reptiles and small mammals. With a wing-spread of about 6 feet, they are enabled to capture and fly off with considerable weights.

The bateleur eagle is easily identified as he soars aloft in the clear African sky. Owing to his practically imperceptible tail his form, with wings outstretched, is almost exactly that of a new moon. His colour scheme is much gayer than is that of the species just referred to, being dull black, reddish chestnut on back and wing covers, whilst the sides of the face, beak, and legs are of brightest red. The head is black, and the appearance of the bold eyes and terrible beak is the last word of untamable ferocity.

The habits of the bateleur are said to be far less predatory than those of the other African eagles; in fact it is confidently and authoritatively stated that his method of maintenance is neither more nor less than bare-faced scavenging. In any case he is a splendid creature, and said, in captivity, to grow extraordinarily tame.

There are, in addition to the foregoing, many

other eagles and birds of prey, including the great tawny eagle, the hawk eagle, the African hawk and the crested hawk eagles, besides numberless vultures, buzzards, hawks, kites, and falcons. Secretary birds pursue their benevolent mission in the slaughter of the snakes, and about seven or eight varieties of owls shatter the nerves of the rats, mice, and other small mammals and birds.

But before I leave the subject of the scavengers I must write a few lines concerning that weird type, common throughout South East Africa, called the ground hornbill.

No more entertaining creature was ever domesticated; no more shameless thief was ever unmasked. The appearance of this bird (called Dendéra by the natives of Zambezia) would suggest that he had been intended by Nature to pose as the incarnation of dull, unctuous respectability —as a sort of hereditary sepulchre-keeper, or pall-bearer-in-chief to the feathered world. The ground hornbill is a large bird garbed in rusty black, with one or two white wing-feathers. His chief feature is an immense beak, upon which, when tame, he will resignedly submit to have fastened a pair of spectacles, provided with which his appearance is unspeakably mirth-provoking. He is a tireless if deliberate pedestrian, and, when domesticated, wanders about the gardens, which he speedily rids of all noxious forms of insect life, uttering a curious wheezy moan which earned for the first one I was enabled to study the appropriate name of the "hard breather." He

also has a habit of chattering his beak in a fashion which recalls a similar trick practised by the marabou stork. Nothing assimilable comes amiss to this extraordinary creature. Small animals, young birds, insects, out-of-date meat, snakes, all these and much more he impales with his long sharp beak, jerks neatly into the air, and skilfully catches in his capacious throat, shaking his head thereafter with an air of profound dejection. Ground hornbills become so tame, and are possessed of such an amazing degree of intelligence, as to recognize readily persons to whom they become attached. They also learn to answer their names, and readily acquire various unusual accomplishments, such as placing the head under a wing and simulating slumber, raising and putting down their feet by word of command, and several others. They are rather trying by reason of the fascination which glittering objects such as spoons, forks, and articles of table silver generally have for them—a friend of mine who lost in this way a valuable jewelled sleeve-link being a lamentable example of this larcenous tendency. But their lives seem to be overshadowed by the very genius of gloom, and to attempt to describe a ground hornbill who appeared to be satisfied with life would be as difficult as to try to portray a hornpipe executed by undertakers.

Nothing gives one more sporting shooting than the ever-present turtle-dove, and nothing affords more excellent material for a really meritorious *ragout*. These delightful little creatures,

whose crooning voices are heard on the outskirts of every village at early morning and each evening at sunset, may be seen about the latter hour flying in large numbers across the maze and millet fields to the nearest watering-place. They travel through the air at a prodigious rate, and usually singly, or in twos and threes. Occasionally, however, where for a long time they have been undisturbed, and the native gardens are very extensive, they may be seen in large swarms, and must consume enormous quantities of native food-stuffs; but their pace is one which, when crossing the sportsman's front or coming down wind overhead, is calculated to try the skill of the most capable.

There are several other varieties of these birds, including the pretty and extremely delicate fruit-eating pigeon, which is considerably smaller than the rosy-hued, white-collared turtle-dove.

High up on the plateaux of Gorongoza and Morumbala I have seen and shot a very large bird which is, of course, a true pigeon. It is of white-speckled bluish grey with yellow beak, and of a size slightly larger, I think, than the ordinary British stock-dove. This fine variety inhabits the forested portion of the higher altitudes, and is exceedingly shy and wary. I have been informed that they are numerous in certain portions of the Shupanga Forest, which I should have regarded as rather low for them, were it not that some few years ago I actually shot one not very far from Lacerdonia.

Partridges, consisting of two different species

of francolin in the forest, and a third, a larger and much more sporting bird not unlike the British variety, in the higher portions of the country, may occasionally be shot. As a rule, I find, the most favourable opportunities occur when one is armed with a rifle. The open grass country abounds with quail of, I believe, two or three species, whilst here and there the good-looking painted snipe may occasionally be flushed. The last mentioned, however, are far from numerous, and many persons familiar with this part of Africa are entirely unaware of their occurrence.

For those who are interested in obtaining striking ornithological specimens there are many types among the shore birds and waders, and among the marsh-dwellers of Zambezia, as well as hundreds of others which are well worthy of preservation. Foremost among these come the rarely beautiful saddle-billed storks, the crested crane—that splendid creature which grows so touchingly tame, and which should be sedulously encouraged to acclimatise itself in England in place of the deafening and often frowsy peacock. In addition to the foregoing there are to select from about twenty-six varieties of pelicans, cormorants, storks, and herons; twelve of ducks and geese; twenty-five of hawks, buzzards, kites, eagles, and falcons; ten of kingfishers, and about fourteen of jewel-like sunbirds—those rarely beautiful creatures, the vividly iridescent sheen of whose exquisite polychromatic feathers makes one at times almost gasp with surprise and pleasure,

and for which there is really no good basis of comparison possible. All these there are, and between seven and eight hundred others. It cannot, therefore, be justly said that bird life on the banks of the great East African river is not fully as representative as it probably is in any other portion of the continent.

# CHAPTER XV

## TSETSE FLY: GAME RESERVES

THE presence of the common tsetse fly in various parts of Zambezia, as doubtless the intending visitor to this great area is likely to discover at the cost of his patience before he has explored very much of it, impels me to write at least a portion of a chapter upon this insect, and upon its relationship to sleeping sickness in man, disease in cattle, and to its dependence or otherwise upon the African game beasts.

Hitherto in these pages I have been at no little pains, sometimes almost at the sacrifice of clearness, to avoid the use of scientific or technical terms for the reasons explained in my preface; but I fear it would be well-nigh impossible to elucidate my meaning did I continue to do so in dealing with the important considerations to which the contemplation of tsetse flies and their fell work gives rise.

I will begin, therefore, by dealing with the elementary facts that whilst sleeping sickness was until recently believed to be a malady spread by the tsetse fly whose scientific name is *Glossina palpalis*, the member of the same unnecessary family whose mission was supposed to consist in the dissemination of *Trypanosomiasis*, or "fly

disease," a sickness fatal to horses and generally to domestic stock, was known as *Glossina morsitans*, the two being by the layman practically indistinguishable.

Sleeping sickness has probably been in existence in West Africa for several centuries; some of the earliest writings descriptive of the voyages of the slavers who visited the coast in the seventeenth century stating that care was exercised in the selection of the negroes purchased lest any should be included exhibiting swollen neck glands, as it was found that these did not long survive. How long this terrible malady took to cross the continent from west to east there are, of course, no means of knowing, but, about fifteen years ago, attention in England began to be attracted by the appalling reports of native mortality occurring from this cause in Uganda, especially in Busoga, and on the shores and islands of Lake Victoria as well as in the division called Kavirondo. The services of such medical experts as we then possessed were promptly requisitioned, and after careful study it was found that the mysterious disease was caused by the injection into the human system of a minute parasite or trypanosome called *Trypanosoma gambiense*, named after the region in West Africa wherein it had first been recorded. It was also conclusively proved that such injection was effected during the bite of the tsetse fly stated above. The progress of the disease to which the bite of this fly was found to give rise signalised itself in a swelling of the neck glands,

ver, pronounced physical and mental languor nd, in later stages, great emaciation and the resistible desire to sleep from which the malady takes its name. From the outset of discovery of infection there were few, if any, survivals, and to increase the gravity of the matter it was soon found that Europeans were susceptible almost as much as the natives, who were, of course, the chief sufferers. No remedy has as yet, so far as I am aware, been discovered, and the only steps which it has been found possible to take have been those of carefully segregating affected persons, and the removal of human habitations back from the shores of lakes and other waterways which the insect disseminator of the sickness selects as his favourite dwelling-place.

As years went on it became gradually evident that sleeping sickness was spreading southward. Slowly but surely it passed along the western shore of Tanganyika, and thence, to the dismay of the administration and the settlers, it found its way little by little into the hitherto healthy uplands of North-Eastern Rhodesia, where it has proved, especially during the last three or four years, a hard problem for the local medical staff, as, to make matters more serious, especially from the point of view of attracting the immigrants necessary to the country's development, a number of cases, which afterwards proved fatal, were identified among Europeans already established. This in itself was bad enough, but what added a hundred-fold to the perplexities of the medical officials of the British South Africa Company was

the fact that, in spite of the most careful and systematic search, with the exception of one or two well-defined areas, no trace of the *Glossina palpalis*, the hitherto supposed sole means of the distribution of sleeping sickness, could be found throughout the length and breadth of the land. The common cattle tsetse, *Glossina morsitans*, was very generally present in North-Eastern Rhodesia, it is true, but so far that insect had not aroused suspicion.

My readers will probably be vainly asking themselves how all this affects the well-being of wild game in Zambezia; but I would crave their patience yet a little, for we are coming to that.

About three years ago, some person, I fancy of European origin, who had been found suffering from sleeping sickness in a portion of North-Eastern Rhodesia which had already gained a somewhat sinister reputation by reason of the relatively large number of cases discovered there, was sent home to England and examined at one of the great establishments which devote special attention to bacteriological problems. Here it was found that the trypanosome or parasite contained in his blood exhibited marked differences from those hitherto identified as the result of the bite of *Glossina palpalis*, the new germ being at once named after its country of origin, *Trypanosoma rhodesiense*.

About this time, the planters of the Nyasaland Protectorate became alarmed at the frequency with which cases of sleeping sickness

appeared in their midst, coming, as it were, from nowhere, and also in spite of the complete absence of *Glossina palpalis*. They also grew increasingly uneasy at what they regarded as the inexplicable spread in their midst of the common cattle-killing fly *Glossina morsitans*. To increase the mystery some fine healthy specimens of the newly discovered Rhodesian parasite just referred to were found in the blood of a missionary said to have been undoubtedly infected in Nyasaland, the assumption rapidly gaining ground that the sleeping sickness which had appeared in North-Eastern Rhodesia and the type discovered in Nyasaland were one and the same, and produced by identical means, whatever they might be. As the best method of inquiring into these momentous matters was evidently to employ experts, an important commission was appointed in 1912 by the British South Africa Company to investigate the whole question of sleeping sickness within their territory, and, about the same time, another commission, under the able direction of Sir David Bruce, commenced its important labours in the Nyasaland Protectorate.

The former established itself in the Loangwa Valley, at or near the spot where the case of sleeping sickness which had furnished the clue to the new parasite had been contracted. Here the medical men entrusted with this difficult task began their investigations, and proceeded step by step to trace the source or main reservoir of the parasite, and the reason for the outbreak

of the terrible malady in a country where no trace of the *Glossina palpalis*, the sole known medium of the disease's transmission, could be found. The attention of these experts was first attracted to the fact that although the last-named insect was apparently wholly absent, the other commoner member of the family, the transmitter of "fly disease" in cattle, existed in extensive belts. Investigation into the latter insect's habits, peculiarities, and mode of life were then pushed forward, with the somewhat startling result that his responsibility for the conveyance of the newly discovered sleeping sickness parasite was placed beyond doubt.

Here then was the whole secret; but with its discovery science found itself confronted by difficulties compared with which those attending the elimination of the disease in Uganda paled into utter insignificance. Here is the reason. *Glossina palpalis*, the first discovered spreading agency of the parasite of the disease, is an insect to whose existence water in fairly large volumes appears to be necessary. They dwell and propagate upon the shores of lakes, rivers, and fairly large streams. By the removal of human habitations from the vicinity of water, therefore, the destructive activity of this fly is at once checked, and the cases of infection greatly reduced in number. But what preventive measures could be adopted to prevent the spread of sleeping sickness disseminated by the newly discovered medium? *Glossina morsitans* apparently cares nothing for water. Its myriads

cover the face of the country in belts sometimes 70 or 80 miles across. The bush in district, no matter how dry, is full of them. They bite human beings and animals alike incessantly from sunrise to sunset, and make life on the road one long purgatory. In the case of this insect, therefore, there was no place to which the unhappy people could be removed unless they abandoned the country altogether. To make matters worse, it could not be stamped out by the collection or destruction of its eggs. The tsetse fly does not deposit eggs like the general mass of insects. Its larva is extruded perfect from the oviduct of the female, and is dropped in a shady place, preferably in loose crumbling soil. There it creeps into the earth, grows so dark in colour as to become practically indistinguishable from its surroundings, and in a short time turns into the pupal or chrysalis stage. Each female fly, with a lifetime of three or four months, may produce eight or ten of these larva, so that when one comes to reflect upon the propagatory activities of a large belt of tsetse flies, the hopelessness of attempting to exterminate them in the undeveloped stage will be readily appreciated.

The Loangwa Valley commissioners now turned their attention to ascertaining what constituted the host, or main reservoir, of the new sleeping sickness parasite, the *Trypanosoma rhodesiense*, and to this end began the systematic examination of the blood of a large number of wild and domestic animals, including that of

elephant, rhinoceros, hippopotamus, lion, buffalo, fourteen different species of antelope, and that of many small mammals, including monkeys, rats, and mice. The conclusions at which they arrived, as the result of this extensive investigation, were of great importance. They indicated that a number of the antelopes (percentage and names not stated) were found to be infected with trypanosomes identical with those producing sleeping sickness in human beings and "fly disease" in domestic stock. Taking the great game as a whole, it was found that something like fifty per cent of the animals were so infected, although, doubtless owing to oversight, or possibly uncertainty as to the species to which they belonged, the names of the innocent varieties have not, so far as I am aware, been as yet made known to us.

So far, then, the commission had succeeded in carrying out the task entrusted to them. They had found that in North-Eastern Rhodesia, and Nyasaland also, in all probability, the transmitting agent of sleeping sickness which had grown so gravely common was, without doubt, the hitherto unsuspected common *Glossina morsitans*, whose previous character, though besmirched by its offences against horses and cattle, had never been assailed by suspicion of crime so grave as the spread of sleeping sickness. To complete their success the commissioners had further placed their fingers upon the reservoir or host of the hitherto mysterious parasites of the terrible disease.

We are now approaching, little by little, the *raison d'être* of this chapter.

I remember a couple of years or so ago perusing in certain Nyasaland and Rhodesian newspapers indignant letters from angry settlers fixing responsibility upon the moderately close proximity of certain game beasts for the presence of tsetse flies, which they not unnaturally regarded as a standing menace to their cattle and other beasts, although, at that time, in common with the rest of the world, they were unaware of the more serious powers which these insects unsuspectedly wielded. Proposals were set on foot to present petitions to the respective administrations pleading for the immediate wholesale destruction of all game beasts in order that the tsetse flies, having nothing more to feed upon, might be induced to pass along to some other and farther removed area, leaving the civilised haunts to the European and his indispensable instrument the native. About the same time interest in the United Kingdom was stimulated by an ably-conducted controversy which took place in the columns of a leading sporting journal, sustained by that careful observer Sir Alfred Sharpe on the one hand, and Mr. F. C. Selous on the other. The matter in dispute, so far as I remember, affected the question of how far the presence of game in a district was responsible for that of tsetse flies, and to what extent, if any, the removal or extermination of game beasts, in areas in which these insects occurred, would lead in turn to

their final extinction. Others, myself included, joined in the discussion, but I fancy but little beyond assertion against assertion was reached. At all events the public began to realise the trend of events, and the danger in which Africa's splendid fauna was soon to find itself. That danger now begins to assume an acute form.

Speaking at a meeting held recently under the auspices of the Liverpool School of Tropical Medicine, Dr. Warrington Yorke, one of those gifted experts whose researches in Rhodesia laid bare the important results which I have just outlined, attempted to furnish something in the nature of a suggestion as to how far the difficulties of dealing with so apparently hopeless a proposition as the rooting out of sleeping sickness could be overcome. He proposed that, as there was considerable evidence that tsetse flies spread with the game, and increased in numbers as the herds increased—as the great game formed the reservoir of sleeping sickness virus, which the fly transmitted to the human being, the only chance of getting rid of the possibility of further infection was to "drive back the game from the neighbourhood of human habitations." He further proposed that a census of the population should be taken, and the proportion suffering from sleeping sickness noted, an index of the percentage of infected flies ascertained, and these steps repeated over prolonged intervals of time. The keynote of the address, however, was the driving back of the great game from the neighbourhood of human habitations, as though it

were to be found in the village gardens, intermixing sociably with the goats and fowls. It rather reminded one of the suggestion by Lewis Carroll's walrus of the employment of "seven maids with seven mops."

Taking as a whole the observations of Dr. Warrington Yorke and other experts, one is irresistibly forced to the conclusion that these gentlemen are one and all unshakably imbued with the firmly-rooted impression that the presence of tsetse flies invariably presupposes the presence of game. You see repeatedly in their writings, and in the accounts of their public utterances, such phrases as "Drive back the game," "This fauna is antagonistic to civilisation," "The big game must go," and so on. If this be so; if this be indeed their firm conviction, then my opinion, based upon twenty years' observation in fly-infested countries, and supported by that of a number of far more competent students of this complex question than I am, is that they are simply beating the air, and advocating, without any proper sense of their responsibilities, measures of the success of which they cannot afford the smallest guarantee.

With regard to the dependence of these insects upon game, it may be convenient here to mention that, equally with a number of other sportsmen and observers, I am acquainted with enormous fly-belts in Portuguese East Africa, where for many miles tsetse flies are a daily and constant source of annoyance, and have been so for many years, but where there is not the

smallest trace of game, nor recollection of its occurrence among the more elderly of the native inhabitants.

In 1908 I was ordered to proceed for certain purposes upon an official tour in the division of Africa which I have just mentioned, in the course of which I crossed over on foot from the Indian Ocean at the port of Ibo to the south-eastern corner of Lake Nyasa at a point in British Nyasaland called Fort Maguire. Twice on this journey did my expedition, upon which I was accompanied by the well-known zoologist and authority upon great game, Major J. Stevenson-Hamilton, pass through extensive fly-belts, one of which must have been fully 80 miles in width. It lay between the M'salu and Lujenda rivers, and throughout its extent we were all badly bitten. Arrived at the village of an elderly headman named Che-chequéo in the Yao country, at which the insects still mercilessly annoyed us, he told me that the country through which we had passed since leaving M'salu was known to his people as the "fly country," and had certainly contained no game within his recollection. I had, on this occasion, about eighty men to feed, and, as will be easily understood, I lost no opportunity of obtaining animal food for them; but throughout this and other fly country through which we passed, where, if there be any point in the contentions of those who advocate game extermination, we should have found the country teeming with animals, we discovered, in spite of our constant searches, neither game nor game

spoor. Soon after we had passed the fly country, however, we encountered game, not very plentifully it is true, but sufficient to enable us to provide our hard-worked carriers and servants with a welcome change of diet. I could, if it were necessary, cite other instances of fly-infested, gameless areas.

In the light of these indisputable facts one asks oneself in vain by what means these countless thousands of insects feed themselves. It cannot be upon human beings, because villages do not occur far from the waters of the two rivers I have mentioned; it cannot be upon game, for to all intents and purposes there is none; and it cannot be upon the small mammals, because these are almost all nocturnal, and do not leave their daylight refuges until after the tsetse fly's period of activity. Putting these aside, it seems highly improbable, when we come to consider the average duration of this insect's life, that it can maintain itself exclusively during the whole of that period upon the blood of reptiles, yet here we are confronted with an immense, fly-infested area, which is known to have been the haunt of the tsetse for many years, and in which it is impossible to discover, in the blood of any living creature, sufficient nutrition to account for their long-continued presence. In these circumstances it is difficult indeed to imagine what useful purpose can be served by advancing the contention that the extirpation of the large, four-footed mammals would infallibly be followed by the disappearance of the fly.

In the public speeches of Dr. Warrington Yorke much importance has been attached to the theory that by "driving back" Africa's magnificent fauna, only a portion of which, as he himself admits, has shown itself to afford hospitality to the sleeping sickness parasite, the main reservoir of infectivity will be removed; but I cannot understand how this portion of the case can possibly be considered (viewed from the standpoint of our present knowledge) to have been fully made out. To begin with, we have, so far as I am aware, no evidence of the rôle played as hosts of disease by the hundreds of species of diurnal birds commonly found in the affected portions of the sub-continent; moreoever, if we were to dismiss them one and all from consideration, we must not forget that in some cases where parasites have been discovered in the blood of certain of the four-footed types examined, it was found, I understand, that they were so few and far between that their discovery was only effected after long and patient search. One may thus, I think, form, with some slight approximation to certainty, a faint idea of how many times the animal might be bitten without infecting the puncturing fly at all. It is perhaps possible that the beast might pass from infancy to old age without bestowing one of its rarely-occurring parasites upon a single tsetse. Again, although, I doubt not, it will be said that the present is no time for temporising, and that every potential source of infection must be ruthlessly "driven back," I cannot refrain from pointing out our entire want of evidence that the

infectivity of beasts of any kind may not be an accidental or temporary condition, and not by any means one of life-long duration.

The Secretary of State for the Colonies, the Right Hon. L. V. Harcourt, has pointed out with absolute understanding of the matter that "to talk of the extermination of the wild fauna of a sub-continent is to talk wild nonsense," adding that "the suggestion is only possible from those who take their natural history and geography from a school atlas." With this view, I feel sure, all those who have considered this matter with calmness and judgment cannot but fully concur. If, then, the difficulties of extermination be so stupendous, what measure of success, I ask, is likely to attend the "driving back" of the many types of active ruminants accustomed to travel in one short night many miles farther than they could be driven in several long and weary days? Of course if Dr. Warrington Yorke's methods of "driving back" are such as he would desire to see entrusted to the wanton, armed native, or the murderous "biltong" manufacturer, to whom I have referred elsewhere, he should be frank and say so.

Let us regard the question from another point of view. It is a well-established fact, as I myself have just pointed out from my own experience, that for reasons of which we are still entirely ignorant tsetse flies adhere to the same areas for long periods of time, wholly irrespective and independent of the presence of game therein. About the year 1896, the visitation of rinderpest

depopulated certain game areas wherein these insects were well established. In its terrible march through the country this disease did not depopulate every portion of it; many small areas were entirely untouched, and it is the descendants of the fortunate dwellers therein who are now slowly restocking the country. In Nyasaland, for example, the destruction wrought by the rinderpest upon animal life in no way, district for district, affected the previous presence of the tsetse. They were there before the rinderpest, when doubtless they waxed fat upon the blood of the multitudinous mammals the country contains, but the destruction of the game affected them not a whit—there they continued. When I was in Nyasaland in 1911, I found the inhabitants, most of whom to me were more or less new-comers, almost panic-stricken because, as they stated, tsetse flies were now appearing in new and previously unvisited localities; but, as I reminded them, that is one of the peculiarities regarding the insect for which science is unable, in spite of commissions, and experts, and men possessed of special knowledge, to afford us any explanation. If they come they come, and means may be devised to rid the country of them, but the fact of their having chosen, as in these cases, portions of the Nyasaland districts where game is decidedly scarce, would not appear to hold out much hope of success to Dr. Warrington Yorke's scheme of getting rid of the tsetse fly by "driving the animals back."

Personally, I feel convinced that the tsetse

has other sources of obtaining nourishment than those afforded by the presence of the blood of either wild or domestic beasts. I am satisfied that on no less than two occasions I have seen these insects in the act of sucking vegetable juices, and I have conveyed full particulars of my observations to the proper quarter. My statements were apparently not welcomed, and there, so far as I am concerned, the matter ends. I may have been mistaken; I may be told that the proboscis of the tsetse fly does not admit of this insect's alimentation by other means than those afforded by mammalian blood, but I shall always firmly believe that they are, upon occasion, capable of maintaining themselves upon vegetable juices, and I shall always believe that I have seen them in the act of doing so.[1]

Let me not, however, be understood, in any single word that I have penned upon this important subject, as having been actuated by any desire to undervalue or belittle the splendid and invaluable services which, in this most difficult and delicate investigation, expert and courageous men like Dr. Warrington Yorke and his devoted colleagues have so successfully rendered, not only to science, but to every individual, of whatsoever nationality, who may seek in the future a South Central African home. Their deeds and their discoveries will live for ever, and nobody more than myself will entertain for them a greater or more

[1] In the Republic of Liberia, where I have recently located *Glossina palpalis*, this insect is commonly called the "Mango Fly" from its alleged fondness for the fruit of that tree.

abiding admiration. But what I would most earnestly implore of them is patience yet awhile. The epoch-making facts which they have brought to light will lose nothing of their value by the lapse of the time necessary to enable us properly to appreciate them. Let us, therefore, not be hasty, nor yet too drastic in our first applied remedies, and, above all, let us be sure before we adopt our preventive measures that they constitute in very truth the only way out. Do not condemn to extirpation even the meanest detail of the African fauna until the blood of every living creature containing it, from the eagle in the zenith to the serpent in his hole, has been carefully examined, so that no small unsuspected host continue unharmed whilst the great fauna are ruthlessly slaughtered.

I hold no brief for wild beasts beyond my boundless admiration for them as one of the most attractive and absorbing features of the African landscape. It is indeed well within the bounds of probability that I may never again see in its wild state another African mammal; but while my voice is heard in connection with that great continent wherein I have passed the best years of my life, I shall raise it in defence of the defenceless fauna until we know beyond question that that fauna must go.

Since the signature in 1900 by all the European powers possessing Spheres of Influence in Africa of a Convention for the protection of the fauna of that continent, which, I believe, was largely the humane idea of the late Sir Clement Hill,

then at the head of the African Department of the Foreign Office, much has been done to put a period to the indiscriminate and wanton slaughter whose recital, in books printed as a rule by "sportsmen" thirsting for notoriety, had at last aroused public deprecation in England.

About that time the slaughter of game, unchecked by anything in the nature of properly framed and enforced regulations, proceeded at a rate which entirely denuded immense and formerly populous areas, leaving them in the bare, desolate condition of so many hundreds of thousands of square miles of monotonous, shot-out country over which the South African train-traveller gazes from his carriage window to-day.

The International Convention came just in time to save the game of Zambezia, and other portions of Portuguese East Africa as well. Up to that time no steps had been taken. For a ludicrously small sum the slaughterer might—and usually did—wade through seas of unnecessarily spilled blood. In 1898, during a short tour of duty at the British Consulate at Beira, the district behind which small port was at that time one in which good shooting was obtainable, I heard of cases of butchery which often aroused my indignation, and cases not always perpetrated by the ignorant or irresponsible. One instance of scandalous abuse has always clung to my memory as possibly the worst to come to my knowledge. This was committed by a hunting party from one of the South African towns who visited the district about that time.

These men were said to have boasted on their return to Beira of having shot in one month over 600 head of wild animals, or an average of more than twenty a day. The professional hunter who accompanied them, and who informed me of what had taken place, was moved at length to remonstrance when he saw two of these creatures actually shoot eleven brindled gnu in one morning, leaving their carcases untouched, and lying upon the plain, a prey for the hyena and the vulture.

In the Nyasaland Protectorate, somewhere about 1894, great amusement was created by the originality of a certain naval officer who was said, I believe with truth, to have taken his bluejackets ashore and concluded their annual musketry course, with satisfactory results, by volley-firing at long ranges at a target formed by the large herds of buffaloes which at that time occurred upon the banks of both the Zambezi and the Shiré Rivers. Generally speaking, the whole wretched business was looked upon as a great joke, and never a thought went out to the numbers of innocent creatures, immature calves and cows heavy with young, dragging out the miserable remnant of their pain-racked days in the agony induced at every movement by their festering wounds and shattered limbs.

Then take the bloodthirsty "biltong" brigands, and the hunters of meat for sale. The Beira and Mashonaland Railway in 1898, and for several years before, ran through a country between the sea and the mountains of the Southern Rhodesian border which was full of game, and

here these slayers, with a perseverance which to me seems devilish, and wholly unchecked by the Mozambique Company, shot daily. Every morning there arrived by train, as also by boat from the Pungwe River, numbers of carcases of antelopes of all kinds, some for immediate consumption and some probably for transformation into "biltong." What is the result? Eight years later, in September 1906, I came down by train from Salisbury to Beira, and crossed once more the enormous expanses surrounding Fontesvilla, which in my previous recollection were full of game. On the whole journey, however, I did not see one single living animal.

Twelve years ago Beira was full of skins and heads and horns of game beasts. If you were a buyer you could secure any specimen you desired for next to nothing. Four European professional hunters conducted parties to the interior, each of these netting £100 a month for his services upon the trip. It is evident, therefore, that, as their patrons never were heard to complain of inefficiency on the part of these men, the return on their investments must have been a large one.

But what has Beira and its formerly populous game districts to show to-day for all this wanton heedlessness of big game butchery? A few ancient, worm-eaten horns hang from the ceilings of one or two deserted stores, growing more and more unsaleable year by year. None of the old-time European hunting *cicerones* remain, nor have others come to take their places.

The whole fact of the matter is that the

Mozambique Company's territory is no longer what it was, and game must now be worked for so hardly as to make it doubtful whether the result justifies the outlay and hardship involved. I believe the Company have established one game reserve, but my recollection is that it was selected at a spot where at no time were animals very plentiful nor varieties extraordinarily diversified. I doubt, therefore, if it has served any strikingly useful purpose, the more so as I have never heard of the appointment of any person possessed of technical knowledge or trained observation in the capacity of warden, nor have I seen any published reports of the results of the experiment.

The only other game reserves within the Portuguese possessions in East Africa are at Inhambane, of which one never hears anything, and in the extreme south of the district of Lourenço Marques. Regarding the latter, my charge against the Mozambique Company relative to lack of trained *personnel* repeats itself, and with this addition, namely, that the authorities actually permit on occasion privileged persons to shoot within the limits of this sanctuary. This I have never heard of the Mozambique Company doing, but then I do not suppose that the contents of their reserve would justify them in doing so.

In the Nyasaland Protectorate there are two game reserves which up to 1911 had admirably fulfilled their humane purpose, and whose sanctity had, I think, never been violated. Unhappily in that year the restrictions placed

upon shooting in the more important of these near Chiromo were largely removed, with the result that the area was promptly invaded by representatives of a type which is ever waiting to take advantage of such an opportunity. These doubtless worked their will upon the long-protected and bewildered animals, and it is sad to think of what must have taken place.

Of the several reserves established in British South Africa, perhaps the most important in the results it has given is that situated between the Drakensberg and the Lebombo Mountains, and widely known as the Sabi Reserve. The supervision of this large area is vested in a warden, and he is assisted by a number of European and native rangers and police. Major J. Stevenson-Hamilton, the present warden, who has for so many years watched unremittingly over its welfare, has attained most remarkably successful results by the uncompromising thoroughness with which his methods have been followed. Indeed it would be difficult to find anywhere one possessed of and exercising such methodical patience in the pursuit of efficiency. I firmly believe that the warden of the Sabi Reserve knows the greater part of his animals by sight, and is almost on bowing terms with many of them. Certainly there is not the smallest detail connected with them, their histories or their habits, with which he is not perfectly acquainted, and the result of all this untiring care and study places him, without doubt, in the foremost rank of contemporary

zoologists. It may be remembered that the success of South Africa's gift of a wonderful game collection to the King on the occasion of His Majesty's coronation was, I believe, wholly due to Major Stevenson-Hamilton's efforts, which his many friends both at home and abroad still look to see suitably recognised.

I have no hesitation in stating that of all the game sanctuaries I have mentioned, that which I have last referred to is the only one which can be regarded as completely fulfilling the purposes for which it was intended, or at all events comes nearest to doing so. For although the establishment of these areas has received a certain amount of more or less apathetic attention in all the British Spheres of Influence in Africa, the adoption of proper measures for the well-being of the species sought to be preserved and increased has not always been allowed to monopolise sufficient attention. It is all very well to publish in the official *Gazettte* of a colony or protectorate the boundaries of a large area in which the hunting or taking of game is forbidden; but it is quite another to take the proper measures, by the allocation of suitable annual grants of money, and the employment of a properly selected staff, for the realisation of the purposes of the increase and protection of game. Of course we must not lose sight of the difficulties with which in these regards our administrators are surrounded; their positions do not always enable them to carry out much which is obviously desirable. For all that, however, I

fear we do not sufficiently realise that in the important matter of game preservation; in relation to the wonderful fauna of Africa, a fauna probably unsurpassed in any portion of the world's surface which so many of our colonies contain to-day, we are merely the trustees of posterity, and have no right or title at the behest of irresponsible and not seldom self-seeking individuals to allow the birth-right of the future to be imperilled by the perhaps immaturely considered decrees of to-day.

In this connection I think that the undoubted benefits which have resulted from the formation of game protection societies, especially in certain portions of South Africa, are such as should give rise to an extension of the movement to others of our dependencies where the advantages of these associations may not have received sufficient attention. From such bodies as these, and from the salutary influences which they undoubtedly wield, public opinion is largely formed, and my own view of the question of game preservation is that in public opinion properly moulded will the game beasts of the future find their chief protection. After all, when one comes seriously to consider the question, the safeguards afforded by regulations and reserves are far from being measures upon which for game preservation permanent reliance can be securely placed. Governors come and go, and with the arrival of each new-comer, did the wild things but know the issues involved, a tremor of apprehension might well thrill through the heart of the jungle.

I do not suppose that such measures are ever taken without grave reflection, nor do I imagine for one moment that any one of our hard-worked administrators ever dreamed of sacrificing the sanctity of game reserves or the lives of their occupants without feeling convinced that he was actuated by good and sufficient reason. But I would beg leave to suggest that before any definite step is irrevocably taken that such section of public opinion as might have interested itself in the more complex aspects of game preservation should be consulted in an advisory capacity. This would do no harm, and might very conceivably greatly strengthen the action of the chief authority, should it be at any time called in question.

# CHAPTER XVI

## RECAPITULATION AND CONCLUSION

THE imperfect description of the game families and the sporting advantages of the immense region of Zambezia contained in the foregoing pages will, I sincerely hope, demonstrate to the host of sportsmen who annually leave the United Kingdom in search of big game the fact that it is one which very seriously merits their attention, and this not solely and entirely for the large number of animals it contains, but for the little that is known of this attractive and beautiful portion of the African continent.

Sport and travel are terms which of late years have become so closely associated that the former, in the judgment of many, largely depends upon the amount of interest afforded by the regions in which it is enjoyed. Where, for example, would any attraction be found to lie if the number of wild animals secured during an average successful journey to Africa could, by the ministrations of some enterprising purveyor, be shot, say, in the Essex marshes? Nobody would do it. It would not be worth while. But when, to a fine collection of interesting and beautiful trophies, is added the glamour of having obtained them in almost unknown, wild, and romantic surroundings

—in a land where few have preceded one—such a consideration is capable of operating to give rise to the execution of prodigies. The number of such regions, however, even in the immensity of Africa, grows yearly smaller and smaller, so that when they come to be temptingly held out to us it grows difficult indeed to disregard them.

For years past the plains of British East Africa have been the scenes of most of the game expeditions of note. So much is this the case that even among those who have never participated in them there is something of familiarity in the names of the different centres, as in the scenery depicted in the numberless photographs which have laid bare the character of the country for the information and entertainment of those at home. Who among us, to whom African shooting is a matter of interest, has not heard of the Athi Plain, the Rift Valley, Taveita, Elgon, Naivasha, and all the rest of them? Who does not conjure up before his mental vision, when such names as these are pronounced, a wide plain, sometimes covered with stunted thorn trees, sometimes offering an unexampled view over the short, well-grazed verdure, of zebras, gazelles, and hartebeestes? One seems to have seen it all without having been there—to have had some of the sport without drawing any of the indispensable cheques. But farther south it is different; you get your shooting, as much as any man is reasonably entitled to, but instead of the over-commercial "you draw the cheque and we do the rest" methods of British East African expedition caterers, you have a new

land which has not as yet made the grandest of sport on earth so overpoweringly business-like a business proposition. In Zambezia you can take more time; your expenses are considerably less; and there is not the smallest present possibility of being jostled by some inconvenient European with just as much right to be there as you have. The region is too vast for that, and in addition to its enormous area it fulfils in the most satisfying manner one's preconceived and perhaps unspoken conception of a great "Land of the Mountain and the Flood." With regard to the climate, at the the time of year when hunting would normally be undertaken, it is as delightful as, with ordinary care, it is harmless.

Of course, with the exception of one or two more favoured areas, game is rarely if ever seen in the vast numbers in which one can gaze upon it in the Rift Valley, or upon the plains between Nairobi and Makindu; but for my own part I regard that as no great disadvantage. The man who always seems to me to enjoy his hunting the most is he who goes out in the morning without the faintest idea of what he will find, but sure that the day holds out something worth finding. His path through the forest is unfailingly pursued with that sustained interest to which such conditions must of necessity give rise. Instead of gazing across immensity, and seeing numberless suspicious beasts upon the far horizon (if that should be what they do in British East Africa), he glances with redoubled interest and anticipation upon every thicket and into every glade.

The next step may bring him full upon the fresh spoor of an eland or an elephant, of a rhinoceros or a roan, or indeed upon these beasts themselves.

If any further inducement were wanting, the grandeur of the scenery, unspoiled as yet (unfortunately for the economic future of this fair land) by railways, motor roads, or manufactures, would abundantly supply it once the coast was left behind. Nothing in my experience and opinion could exceed or approach the wild beauty of Boror, of Lugella, of the Namuli Peaks to the northward or, farther to the west, of mighty Morumbala and gigantic Chiperoni. They exhibit every variety of African landscape, every splendour of Nature in her wildest and most prodigal moods. If, having set out the foregoing, any additional element calculated still further to predispose the reader in favour of this wide and splendid game country were wanting, it would be found, I doubt not, in the kindly willingness of the well-disposed, peaceable natives. There are none of your boot-shod, blanket-pampered, exorbitantly paid carriers here; the men, whilst in every sense worthy of their hire, are satisfied with humane, just, and reasonable treatment, without expecting to have embroidered on to it the senseless indulgences with which the wealthy plutocrats who hie them to the plains of British East Africa have so delighted to spoil the market for other sportsmen quite as keen and possibly keener, but unluckily less favoured in their share of this world's indispensable goods.

I must confess, knowing the region as I do,

that I have never been able to understand why it is that so meagre a measure of attention has in the past been devoted to Zambezia. It has come to be regarded, I am afraid, as a kind of unfortunate, not very desirable East African waif, and its neglect has been so consistent that the country as a whole is nowadays rarely spoken of except in terms of belittlement and dispraise. Yet those who live there—those who know it intimately—have a very different account to give. Its commercial capacity is so vast as, of recent years, to have gained for it a small, apparently reluctantly-conceded measure of perfunctory attention, and with that attention a half-hearted interest in Zambezian game has slowly raised its anæmic head. That the country to the north of the lower courses of the Zambezi compares favourably with that to the south, which for so many years was regarded as one of the finest shooting grounds in the southern half of East Africa, no longer, to my mind, admits of a doubt; and as the remoter districts are reached, the numbers of the game beasts are found to be as great as their varieties are interesting. Much of this interior consists, as described in my book *Zambezia*, of moderately high forested country, from whose irregular undulations chains of granite mountains at times abruptly spring; but from the Zambezi to the Lurio the district is a wonderfully well watered one during the whole year, and the plains forming the lower levels of such river basins as those of the Lugella, Licungo, Ruo, and Shiré are well worthy of the most careful examination, not so much for

the sake of what we know to be there, as for that which may be. I am of opinion that these unfrequented vastnesses of Africa have still much to yield us in the way of zoological and other surprises, and these rewards not seldom reserve themselves for those to whom appreciation of sport and travel adds its advantage in the investigation of the more untrodden fields of African research.

I am afraid, were it in my power to do so, I should devote a large portion of the country lying to the north of the Zambezi to the purposes of game preservation, and to such a design it would admirably lend itself. It possesses all the necessary qualities for the establishment of a sanctuary capable of affording a perfect refuge to every beast within its borders, and not only to these, but it would admit of most interesting experiments in the acclimatisation and propagation of varieties from other parts of the country which are tending from one cause or another to grow alarmingly scarce. This is a phase of game preservation to which, I have sometimes thought, sufficient attention has not in the past been directed. It is of course obvious that, left to themselves, certain types, such for example as the springbuck, the oryxes, and others, have preferred to pass their lives on the vast plains of Africa, moved thereto, doubtless, by considerations which to observers of understanding are perfectly intelligible, and no useful result would attend any experiment having for its object their removal therefrom; but there are many types among the forest-dwellers un-

accountably absent from surroundings which, so far as can be ascertained, are in all respects favourable to their establishment and well-being. It seems not to have occurred to zoologists that means might be found in our great game reserves to introduce and acclimatise many species at present unknown in them caught in and imported from other and not dissimilar regions where they may seem to be growing rarer. What, for example, would there be, save the mere question of expense, to prevent the capture and turning down of the Congo buffalo in the lower levels of the Sabi Reserve, or the introduction of a pair of pygmy hippopotami from Liberia into the waters of the rivers flowing through the same admirably conducted refuge? Nothing could exceed the interest of such experiments as these, nor their value from almost every conceivable point of view.

To my mind a game reserve should be conducted more or less upon the lines of a carefully tended botanical garden. That is to say, it should be made the scene of the propagation and protection not only of the animals which it contained at the outset, but of every African beast from north, south, east, or west which might be induced to live and multiply within its limits. I trust the day may still be in store for the fauna of Africa when every European Sphere of Influence participating in the development of that great continent will possess not only well-organised reserves for the preservation of their game, but a regular system of exchange of the various animals for the purpose gradually of widening the distribution of

the hardier families. This is, I think, the ideal towards which all persons interested in game preservation should direct their energies, an ideal whose attainment would secure, better than any other means, the everlasting safety of the wild game of Africa.

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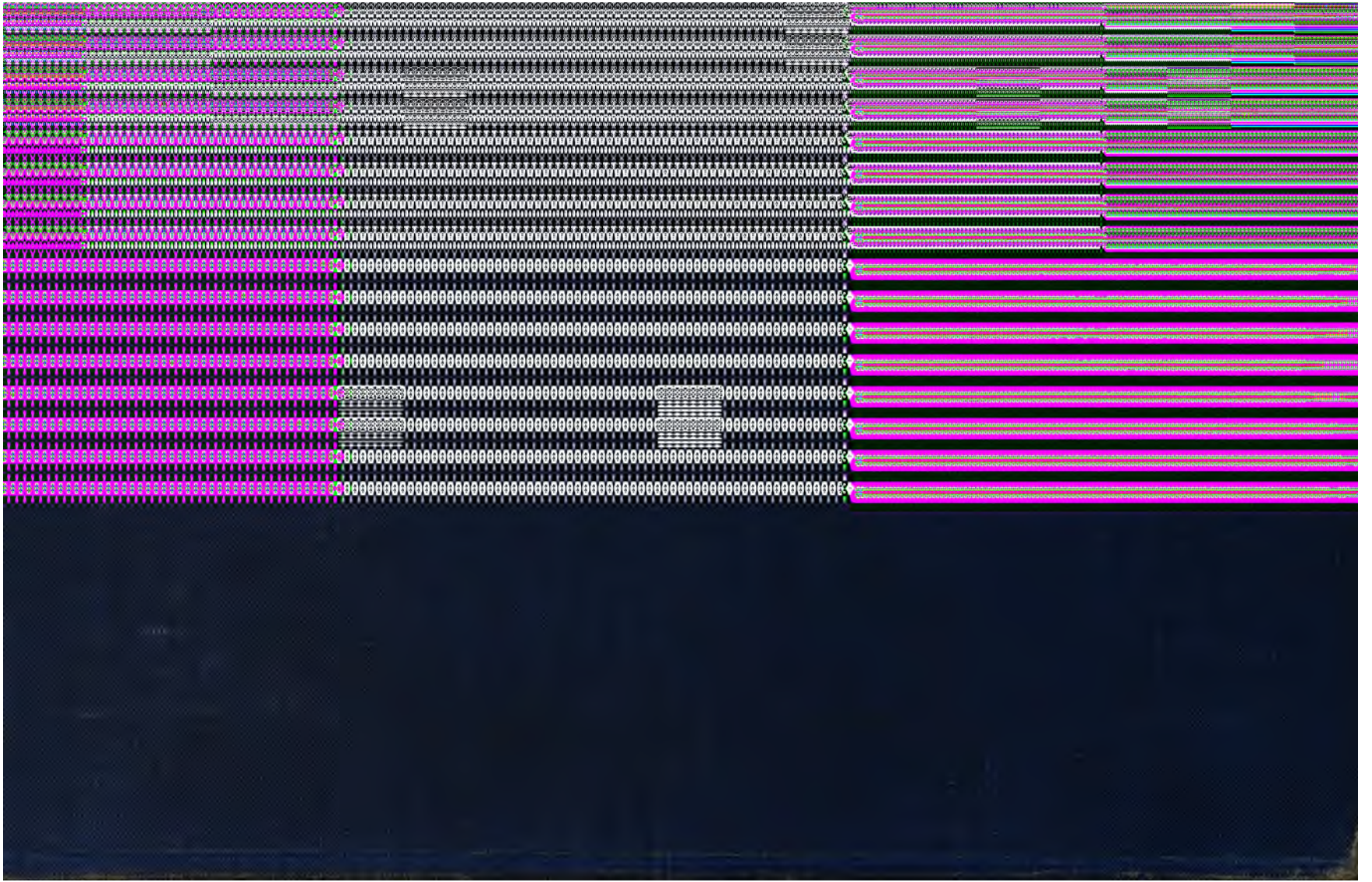
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